

ATTACHMENT 7

SPECIAL CONDITIONS RATIONALE

VPDES PERMIT PROGRAM
LIST OF SPECIAL CONDITIONS RATIONALE

Name of Condition:

B. Other Requirements or special Conditions

1. Nutrient Enriched Waters Reopener

Rationale: The Policy for Nutrient Enriched Waters, 9 VAC 25-40 -10 allows reopening of permits for discharges into waters designated as nutrient enriched if total phosphorus and total nitrogen in a discharge potentially exceed specified concentrations. The policy also anticipates that future total phosphorus and total nitrogen limits may be needed.

2. Total Maximum Daily Load (TMDL) Reopener

Rationale: For specified waters, section 303(d) of the Clean Water Act requires the development of total maximum daily loads necessary to achieve the applicable water quality standards. The TMDL must take into account seasonal variations and a margin of safety. In addition, section 62.1-44.19:7 of the State Water Control Law requires the development and implementation of plans to address impaired waters, including TMDLs. This condition allows for the permit to be either modified or, alternatively, revoked and reissued to incorporate the requirements of a TMDL once it is developed. In addition, the reopener recognizes that, in accordance to section 402(o)(1) of the Clean Water Act, limits and/or conditions may be either more or less stringent than those contained in this permit. Specifically, they can be relaxed if they are the result of a TMDL, basin plan or other wasteload allocation prepared under section 303 of the Act.

3. Licensed Operator Requirement

Rationale: The Permit Regulation, 9 VAC 25-31-200 D and Code of Virginia 54.1-2300 et. seq., Rules and Regulations for Waterworks and Wastewater Works Operators (18 VAC 160-20-10 et seq.) requires licensure of operators.

4. Operations & Maintenance (O & M) Manual

Rationale: The State Water Control Law, Section 62.1-44.21 allows requests for any information necessary to determine the effect of the discharge on state waters. Section 401 of the Clean Water Act requires the permittee to provide opportunity for the state to review the proposed operations of the facility. In addition, 40 CFR 122.41 (e) requires the permittee, at all times, to properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) in order to achieve compliance with the permit (includes laboratory controls and QA/QC).

5. Notification Levels

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-200 and 40 CFR 122.42 (a) require notification of the discharge of certain parameters at or above specific concentrations for existing manufacturing, commercial mining and silvicultural discharges.

6. Quantification Levels Under Part I.A.

Rationale: States are authorized to establish monitoring methods and procedures to compile and analyze data on water quality, as per 40 CFR part 130, Water Quality Planning and Management, subpart 130.4.

7. Compliance Reporting Under Part I.A.

Rationale: Defines reporting requirements for toxic parameters with quantification levels and other limited parameters to ensure consistent, accurate reporting on submitted reports.

8. Materials Handling and Storage

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-50 A., prohibits the discharge of any wastes into State waters unless authorized by permit. The State Water Control Law, Sec. 62.1-44.18:2, authorizes the Board to prohibit any waste discharge which would threaten public health or safety, interfere with or be incompatible with treatment works or water use. Section 301 of the Clean Water Act prohibits the discharge of any pollutant unless it complies with specific sections of the Act.

9. Effluent Monitoring Frequencies

Rationale: The incentive for reduced monitoring is an effort to reduce the cost of environmental compliance and to provide incentives to facilities which demonstrate outstanding performance and consistent compliance with their permits. Facilities which cannot comply with specific effluent parameters or have other related violations will not be eligible for this benefit. This is in conformance with Guidance Memorandum No. 98-2005 Reduced Monitoring and EPA's proposed "Interim Guidance For Performance-Based Reduction of NPDES Permit Monitoring Frequencies" (EPA 833-B-96-001) published in April 1996.

10. Ground Water Monitoring Plan

Rationale: Ground water monitoring will indicate whether the system integrity is being maintained and will determine if activities at the site are resulting in violations of the SWCB's Groundwater Standards.

11. Sampling Methodology for Outfall 001

Rationale: Defines methodology for collecting representative effluent samples in conformance with applicable regulations.

12. Use of Trichlorophenol or Pentachlorophenol as Biocides

Rationale: Federal regulations at 40 CFR §430 Subparts B and I require certification by facilities not using certain biocides.

13. Discharge Flow Management for Outfall 001

Rationale: The VPDES Permit Regulation at 9 VAC 25-31-220 K. and federal regulations at 40 CFR §122.44(k) allow BMPs for the control of toxic pollutants listed in Section 307(a)(1) and hazardous substances listed in Section 311 of the Clean Water Act where numeric limits are infeasible or BMPs are needed to accomplish the purpose/intent of the law. Actual daily Instream Waste Concentration (IWC) is being limited to a maximum of 65% to ensure that actual IWC is significantly less than the 75% utilized in the Toxics Management Program for toxicity testing purposes.

Rationale and Discussion for Out-Of-Season Discharges:

The permittee submitted a permit modification request in May 2008. The permit modification request came after numerous discussions between the permittee and DEQ concerning allowing IP to discharge some wastewater outside the permitted season of November to March. IP was concerned that in recent years low river flows, low in-stream dissolved oxygen levels and/or high water temperatures have made it difficult for IP to begin their discharge season early enough to allow

the release of the entire contents of "C" pond, which they need to empty prior to March 31 in order to accommodate all of the wastewater generated during the times of year they do not discharge. They have had to request out-of-season discharges in past years. There were no regulatory criteria for requesting, approving, monitoring or documenting such discharges. Through subsequent discussions it was decided to best include these types of discharges in the VPDES permit if IP felt the need to request these in the future. Specific language has been developed to address these discharges. Specific rationale for the language follows.

13.a. This language has not changed from the previous permits except to note that out-of-season discharges will be authorized in Part I.B.13.c.

13.b. This language has changed only in that this section now specifically applies to routine seasonal discharges from November to March.

13.c. This language specifically addresses out-of-season discharges. Out-of-season discharges will be considered for approval in September and October. If the permittee submits acceptable and approvable toxicity test results using early life-stage herring, out-of-season discharges will be considered in all months except April and May. April and May discharges will not be approved due to two main factors. The first is that the wildlife and fisheries staffs from North Carolina, Virginia and the US Fish and Wildlife Service have expressed concern over spring time discharges that could potentially affect shad and herring spawning and migration. Correspondence from these agencies is presented in Attachment 13. Secondly, IP has indicated that the intent of these out-of-season discharges was to coincide with storm events that provide for higher river flows than typical for the season. These types of storm events are more frequent in later summer and fall months rather than the short-duration, localized heavy rainfalls associated with spring thunderstorm events. The benefit from allowing short-duration discharges in these months does not outweigh the need to protect indigenous fish populations in these months, including populations that may linger in the Blackwater River past the typical migration time frame. Discharges in other months will be considered for approval by the DEQ Regional office on a case-by-case basis. All out-of-season discharges must be approved before an out-of-season discharge can take place. Out-of-season discharges based on the results of toxicity testing in June, July and August will be limited to the IWC identified in the toxicity tests as the NOEC.

13.c.1. provides the requirements for requesting out-of-season discharges. This will standardize the request process and provide the DEQ the information considered necessary to approve such a request.

13.c.1.a. addresses the discharge rate and management thereof to protect against toxicity to aquatic organisms and be protective against biological impacts in the receiving stream. This is similar to the existing requirement for permitted discharge season discharges presented in 13.b. of the permit. The IWC will be limited to 45% during each discharge day for out-of-season discharges. This is based on two factors. The first is that the DEQ does not want the receiving stream to be effluent-dominated during times of high water temperatures, low dissolved oxygen levels and potential impacts from storm events. Secondly, IWC data submitted with toxicity test results from 2011 to the present indicate that the permittee has had IWC levels no higher than 25%, with no IWC greater than 25% for in-season discharges. It is not prudent nor protective of the receiving stream to allow higher IWC concentrations during times of out-of-season discharges than the permittee has maintained during typical permitted discharges during times of the least critical river conditions. The permittee has demonstrated passing toxicity test results consistently when IWC's were less than 45%, so toxicity testing will not be required during out-of-season discharges as long as the IWC is less than 45%. Data gathered during the current permit term showed the highest IWC of 25% in 2013.

13.c.1.b. addresses in-stream dissolved oxygen (D.O.) levels and monitoring of instream D.O. levels prior to an out-of-season discharge. This section also addresses review of the D.O. data and management of the discharge rate so that D.O. levels are maintained at ambient in-stream levels, with no impact to in-stream D.O. levels attributable to the out-of-season discharge. The permittee will need to provide D.O. data and proposed discharge management practices to ensure D.O. levels are not impacted by the discharge.

13.c.2. addresses the duration of discharge. The permittee will be allowed to discharge during times of increased river flow and must cease discharging before river flows return to historical averages. This will ensure that the discharge is associated only with increased flows as indicated in the permittee's modification request, and therefore protects the receiving stream from impacts associated with a discharge during critical river conditions.

13.c.3. addresses monitoring requirements during out-of-season discharges. The permittee must monitor at least once per discharge for each out-of-season discharge. If a discharge event lasts longer than 7 calendar days, the permittee must monitor in accordance with Part I.A. of the permit. Effluent limitations listed in Part I.A. will be in effect during out-of-season discharges. This requirement ensures compliance with the permit, the State permit regulation and 40 CFR for discharges from pulp and paper mills. The permittee will be required to submit a discharge monitoring report (DMR) providing the results of effluent sampling. 2,3,7,8-TCDD and 2,3,7,8-TCDF are not subject to discharge-event limitations, these parameters are only subject to seasonal limitations, and are subject to 1/season monitoring, required in the last 14 days of the discharge season. Therefore, monitoring for these parameters will not apply to out-of-season discharges.

13.c.4. addresses documentation and evidence to show that the out-of-season discharge(s) caused no environmental impacts in the receiving stream. This is in accordance with the general Water Quality Standard that prohibits a discharge to alter the receiving stream.

14. In-Stream D.O. Monitoring During the Discharge Season, November-March

Rationale: The Virginia Water Quality Standards at 9 VAC 25-260-50 establish minimum dissolved oxygen criteria that must be maintained. The VPDES regulations at 9 VAC 25-31-210 and -220 authorize the establishment of conditions and limitations necessary to assure compliance with applicable requirements and water quality standards.

This condition applies to discharges during the discharge season of November to March. This is to separate this requirement from the monitoring and discharge management requirements in condition 13.c. that addresses out-of-season discharges. The condition requires the permittee to regulate the discharge so that all D.O. standards downstream of the discharge shall be maintained. The discharge from this facility has little impact upstream of the discharge.

15. Sampling Methodology for Outfall 103

Rationale: Defines methodology for collecting representative effluent samples in conformance with applicable regulations.

16. Measurement and Reporting of Kappa Number for Outfall 103

Rationale: Kappa Number is a method-defined analyte regulated under 40 CFR 430 for bleach lines enrolled in the Voluntary Advanced Technology Incentives Program. The methodology for measuring and reporting Kappa Number in conformance with applicable regulations must be defined.

17. Filtrate Recycling and Certification

Rationale: 40 CFR §430.24(b) requires that pulping process filtrates be recycled for bleach lines enrolled in the Voluntary Advanced Technology Incentives Program.

C. Best Management Practices (BMPs) for Spent. Pulping Liquor, Soap and Turpentine Management, Spill Prevention, and Control

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-220 K., and 40 CFR 122.44(k) allow BMPs for the control of toxic pollutants listed in Section 307(a)(1), and hazardous substances listed in Section 311 of the Clean Water Act where numeric limits are infeasible or BMPs are needed to accomplish the purpose/intent of the law. In addition federal categorical effluent guidelines at 40 CFR 7'430.03 prescribe certain best management practices applicable to this facility. The facility has been implementing the conditions required in the BMPs over the previous permit term, and all items are currently completed or are ongoing. Changes in operations, processes and/or controls may necessitate updating the BMPs at the facility in the future.

D. TOXICS MANAGEMENT PROGRAM (TMP)

Rationale: To determine the need for pollutant specific and/or whole effluent toxicity limits as may be required by the VPDES Permit Regulation, 9 VAC 25-31-220 D. and 40 CFR 122.44 (d). See Attachment 9 of this fact sheet for additional justification.

E. STORM WATER MANAGEMENT CONDITIONS

1. Recording of Results

Rationale: This sets forth the information which must be recorded and reported for each storm event sampling (ie. date and duration event, rainfall measurement, and duration between qualifying events). It also requires the maintenance of daily rainfall logs which are to be reported. This condition is carried over from the previous storm water pollution prevention plan requirements contained in the EPA storm water baseline industrial general permit.

2. Sampling Waiver

Rationale: This condition allows the permittee to collect substitute samples of qualifying storm events in the event of adverse climatic conditions. Use of this condition is a BPJ determination based on the EPA storm water multi-sector general permit for industrial activities and is consistent with that permit.

3. Representative Discharge

Rationale: This condition allows the permittee to submit the results of sampling from one outfall as representative of other similar outfalls, provided the permittee can demonstrate that the outfalls are substantially identical. Use of this condition is a BPJ determination based on the EPA storm water multi-sector general permit for industrial activities and is consistent with that permit.

4. Quarterly Visual Examination of Storm Water Quality

Rationale: This condition requires that visual examinations of storm water outfalls take place at a specified frequency and sets forth what information needs to be checked and documented. These examinations assist with the evaluation of the pollution prevention plan by providing a simple, low cost means of assessing the quality of storm water discharge with immediate feedback. Use of this condition is a BPJ determination based on the EPA storm water multi-sector general permit for industrial activities and is consistent with that permit.

5. Releases of Hazardous Substances or. Oil in Excess of Reportable Quantities

Rationale: This condition requires that the discharge of hazardous substances or oil from a facility be eliminated or minimized in accordance with the facility's storm water pollution prevention plan. If there is a discharge of a material in excess of a reportable quantity, it establishes the reporting requirements in accordance with state laws and federal regulations. In addition, the pollution prevention plan for the facility must be reviewed and revised as necessary to prevent a reoccurrence of the spill. Use of this condition is a BPJ determination based on the EPA storm water multi-sector general permit for industrial activities and is consistent with that permit.

6. Allowable Non-Storm Water Discharges

Rationale: The listed allowable non-storm water discharges are the same as those allowed by the EPA in their multi-sector general permit, and are the same non-storm water discharges allowed under the Virginia General VPDES Permit for Discharges of Storm Water Associated with Industrial Activity, 9 VAC 25-151-10 et seq. Allowing the same non-storm water discharges in VPDES individual permits provides consistency with other storm water permits for industrial facilities. The non-storm water discharges must meet the conditions in the permit.

7. Water Quality Protection

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-220 D requires effluent limitations to be established which will contribute to the attainment or maintenance of water quality criteria.

8. Storm Water Pollution Prevention Plan

Rationale: The Clean Water Act 402(p) (2) (B) requires permits for storm water discharges associated with industrial activity. VPDES permits for storm water discharges must establish BAT/BCT requirements in accordance with 402(p) (3) of the Act. The Storm Water Pollution Prevention Plan is the vehicle proposed by EPA in the final NPDES General Permits for Storm Water Discharges Associated with Industrial Activity (Federal Register Sept 9, 1992) to meet the requirements of the Act. Additionally, the VPDES Permit Regulation, 9 VAC 25-31-220 K., and 40 CFR 122.44 (k) allow BMPs for the control of toxic pollutants listed in Section 307 (a)(1), and hazardous substances listed in Section 311 of the Clean Water Act where numeric limits are infeasible or BMPs are needed to accomplish the purpose/intent of the law.

ATTACHMENT 8

MATERIAL STORED

Materials Stored

✓ 40004162

Form 2F, Item IV.B Narrative Description of Significant Materials

Form 2F, Item IV.0 Description of Structural and Non-Structural Control Measures

Outfall 002 discharges into the Blackwater River at the north end of the Mill site. It drains the north rail yard area, where tank cars containing chemicals used in the fluff pulp process are temporarily stored until needed. Tank car unloading of pulping liquors, primarily black liquor and turpentine, occurs on a spur just south of the main tracks in the areas designated for black liquor loading and unloading. Curbing around the loading and unloading area is present to prevent the possible release of liquors should an accidental spill or release occur. In addition, catch basins at the points of loading/unloading are present to prevent the possible release of liquors or turpentine should an accidental spill or release occur. Discharges from the loading and unloading areas flow to the Mill's effluent treatment system which ultimately discharges to Outfall 001; the primary activity in the Outfall 002 drainage area is rail car storage. Water is continuously discharged from Outfall 002, which appears to be generated by groundwater seeping into the pipe and a drainage ditch that extends from Beaverdam Swamp to the north rail yard.

Outfall 006 discharges into Washole Creek just west of the rail bridge at the south end of the facility. The drainage area is predominantly composed of unpaved surfaces and railroad bed. Tank cars containing chemicals used in the fluff pulp process are temporarily stored on these tracks until needed. A locomotive is parked in this area when not in use that is used to move rail cars from storage up to the north rail yard. When present, the locomotive is parked on sorbent pads to absorb leaks of oil and grease. A shed containing oil drums and spill response materials for the rail yard operator is also located in the drainage area. The outfall pipe at 006 is equipped with a manually operated slide valve that can be closed in the event of a spill. The valve is opened on a monthly basis to ensure proper operation.

Outfall 007 discharges into Washole Creek upstream of Outfall 006. The drainage area is unpaved surfaces and railroad bed. Tank cars containing chemicals used in the fluff pulp process are temporarily stored on these tracks until needed. The outfall pipe at 007 is equipped with a manually operated slide valve that can be closed in the event of a spill. The valve is opened on a monthly basis to ensure proper operation.

Outfalls 008, 009, and 011 discharge into unnamed tributaries to Kingsale Swamp. Each outfall drains areas outside the dike surrounding the landfill as well as the capped portions of the landfill. Water that contacts the landfill waste is segregated by dikes and berms and drains to a leachate collection system from which it is pumped to the industrial effluent system for ultimate discharge via Outfall 001. Stormwater from Outfalls 008, 009, and 011 is directed through sedimentation basins prior to discharge, and discharges from each area are controlled by riser boxes.

Outfall 010 discharges into Washole Creek adjacent to Outfall 006. Discharges are composed entirely of uncontaminated, untreated fresh groundwater from the south well field used in the Mill's industrial processes. The headers at Outfall 010 are periodically opened to perform line flushing of the water supply lines for maintenance purposes. The discharge of any process wastewater or stormwater from this outfall is prohibited.

Outfalls 012, 013, and 014 discharge off Mill property and into conveyance systems that eventually reach Washole Creek. Each of the drainage areas are associated with container storage; the Outfall 012 and 013 drainage areas are each used to store containers of finished fluff pulp waiting to be hauled off-site, while the Outfall 014 drainage area is used to clean and store empty truck containers. Each drainage area is covered with gravel and discharges pass through sedimentation basins before flowing off-site. There is no loading or unloading of product or material in these lots.

Outfall 015 discharges into an unnamed tributary to the Blackwater River in the Mill's north well field. Discharges are composed entirely of uncontaminated, untreated fresh groundwater used in the Mill's industrial processes. The headers at Outfall 015 are periodically opened to perform line flushing of the water supply lines for maintenance purposes. The discharge of any process wastewater or stormwater from this outfall is prohibited.

Pollutants stored in rail cars in the drainage areas of Outfalls 002, 006, and/or 007:

- Sulfuric acid (Section 313 Water Priority Chemical)
- Pulping liquors (black, green, and white)
- Sodium hydrosulfide
- Sodium hydroxide
- Sodium chlorate
- Lime
- Turpentine
- Raw wood chips

Non-Structural Control Measures: All outfalls are subject to monthly visual inspections. In addition, all outfalls are addressed in the Stormwater Pollution Prevention Plan (SWPPP) developed for the Mill. Mill employees receive annual training for the SWPPP and other environmental programs, including Spill Prevention, Control, and Countermeasures (SPCC) and the facility Emergency Response Plan. A Hazardous Emergency Action Team (HEAT), consisting of Mill employees, is capable of responding to spills of varying sizes.

ATTACHMENT 9

TOXICS MONITORING/TOXICS REDUCTION/
WET LIMIT RATIONALE

MEMORANDUM
VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE

5636 Southern Boulevard

Virginia Beach, VA 23462

SUBJECT: Whole Effluent Toxicity language for International Paper-Franklin (VA0004162)

TO: D. Thompson

FROM: Deanna Austin C

DATE: September 14, 2015

COPIES:

International Paper-Franklin (IP) is a paper mill located in Franklin, VA. Discharge results from the manufacture of fluff pulp, tissue and recycled papers. Outfall 001 discharges to the Blackwater River. Data collected during the 2010-2015 permit term are shown in the table below. No changes are proposed to the current permit language.

DESCRIPT	SPECIES	Date	LC50	SURVIVAL	NOEC	TU	LAB
1st Set of 2 Acute Tests	C.d.	1/24/11	100	100		1	CBI
1st Set of 2 Acute Tests	C.d.	1/24/11	100	100		1	CBI
1st Set of 2 Chronic Tests	C.d.	2/7/11		100	100	1	CBI
1st Set of 2 Chronic Tests	C.d.	2/7/11		100	100	1	CBI
2nd Set of 2 Acute Tests	C.d.	1/23/12	100	100		1	CBI
2nd Set of 2 Chronic Tests	C.d.	1/23/12		100	100	1	CBI
2nd Set of 2 Acute Tests	C.d.	2/6/12	100	100		1	CBI
2nd Set of 2 Chronic Tests	C.d.	2/6/12		100	100	1	CBI
3rd Set of 2 Acute Tests	C.d.	1/14/13	100	100		1	CBI
3rd Set of 2 Chronic Tests	C.d.	1/14/13		100	100	1	CBI
3rd Set of 2 Chronic Tests	C.d.	1/28/13		100	75	1.33	CBI
3rd Set of 2 Acute Tests	C.d.	1/28/13	100	100		1	CBI
4th Set of 2 Acute Tests	C.d.	1/20/14	100	100		1	CBI
4th Set of 2 Chronic Tests	C.d.	1/20/14		100	100	1	CBI
4th Set of 2 Acute Tests	C.d.	2/3/14	100	100		1	CBI
4th Set of 2 Chronic Tests	C.d.	2/3/14		100	75	1.33	CBI
5th Set of 2 Acute Tests	C.d.	1/12/15	100	100		1	CBI
5th Set of 2 Chronic Tests	C.d.	1/12/15		100	56	1.78	CBI
5th Set of 2 Acute Tests	C.d.	2/9/15	100	100		1	CBI
5th Set of 2 Chronic Tests	C.d.	2/9/15		100	100	1	CBI

The following language is recommended for the International Paper-Franklin permit.

D. TOXICS MANAGEMENT PROGRAM (TMP)

1. Biological Monitoring - Outfall 001

- a. The permittee shall conduct two acute and two chronic toxicity tests each discharge season. The acute test samples shall be collected using a grab sample of final effluent from outfall 001. The chronic test samples shall be collected using at least three grab samples of final effluent from outfall 001 during the chronic test. The second acute test shall be conducted during the second chronic test. The last grab sample for the second chronic test shall be collected within 14 days of the end of the discharge season. The acute tests shall be 48-hour static tests using Ceriodaphnia dubia, conducted in such a manner and at sufficient dilutions for calculation of a valid LC₅₀. The chronic tests shall be static renewal tests using Ceriodaphnia dubia. The C. dubia test shall be a 3-brood survival and reproduction test. These chronic tests shall be conducted in such a manner and at sufficient dilutions to determine the NOEC for survival and reproduction. The results of all analyses shall be reported. Test results for each test shall be submitted by the 10th of the month after the month the test results were received.

Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3

- b. The permittee may provide additional samples to address data variability. These data shall be reported and may be included in the evaluation of the effluent toxicity. Test procedures and reporting shall be in accordance with 1.a above.
- c. The following criteria shall be used in evaluating the toxicity test data generated in 1.a above:
- (1) Acute LC₅₀ greater than or equal to 100% effluent;
 - (2) Chronic NOEC greater than or equal to the IWC of 75%
- d. If, in the testing according to I.D.1, any toxicity tests are invalidated, the tests shall be repeated within the testing period that the original test was taken, or if already past that period, within fourteen (14) days of notification. If there is no discharge during this period, a sample must be taken during the first allowable discharge.
- e. All applicable data will be evaluated for reasonable potential at the conclusion of the test period. The data may be evaluated sooner if requested by the permittee, or if toxicity has been noted. Should evaluation of the data indicate that a limit is needed, a WET limit and compliance schedule will be required and the toxicity tests of D.1.a. may be discontinued.

2. Reporting Schedule

Each toxicity test report submitted in accordance with this Toxics Management Program shall identify the specific period represented. The permittee shall report the results and supply one complete copy of the toxicity test reports to the Tidewater Regional Office in accordance with the schedule below. A complete report must contain a copy of all laboratory benchsheets, certificates of analysis, and all chains of custody.

(a)	Conduct first set of two acute and two chronic biological tests	By March 31, 2016
(b)	Submit results of all biological tests	By the 10 th of the month following the month in which test results were received but no later than May 10, 2016
(c)	Conduct second set of two acute and two chronic biological tests	By March 31, 2017
(d)	Submit results of all biological tests	By the 10 th of the month following the month in which test results were received but no later than May 10, 2017
(e)	Conduct third set of two acute and two chronic biological tests	By March 31, 2018
(f)	Submit results of all biological tests	By the 10 th of the month following the month in which test results were received but no later than May 10, 2018
(g)	Conduct fourth set of two acute and two chronic biological tests	By March 31, 2019
(h)	Submit results of all biological tests	By the 10 th of the month following the month in which test results were received but no later than May 10, 2019
(i)	Conduct fifth set of two acute and two chronic biological tests	By March 31, 2020
(j)	Submit results of all biological tests	By the 10 th of the month following the month in which test results were received but no later than May 10, 2020

ATTACHMENT 10

RECEIVING WATERS INFO/
TIER DETERMINATION/STORET DATA/
STREAM MODELING/303(d) LISTED SEGMENTS

rE)
Planning Permit Review

Date: 6/30/2015

To: Kristie Britt, TRO

Permit Writer: Debbie Thompson

Facility: International Paper-Franklin Mill.

Permit Number: VA0004162

Issuance, Reissuance or Modification (if Modification describe): Reissue

Permit Expiration Date: 11/15/2015

Waterbody ID (ex: VAT-G15E): VAT-K36R

Topo Name: Riverdale 05C

Facility Address:

34040 Union Camp Drive, Franklin, VA 23851 — note —facility address is approx. 7 miles from the actual discharge location. Lat Long of discharge location is 36 34 08 76 53 09.

Receiving Stream: Attached are topographic maps showing facility property boundaries and outfall(s) locations for those included in this request.

Stream Name:	
Stream Data Requested?	
Outfall #: 001	Lat Lon: 36 34 08 76 53 09
Outfall #:	Lat Lon:
Outfall #:	Lat Lon:
Stream Name (2):	
Stream Data Requested?	
Outfall #:	Lat Lon:
Outfall #:	Lat Lon:
Outfall #:	Lat Lon:

If greater than 2 receiving streams or 3 outfalls per stream please provide a separate table with outfall listings and Latitude Longitude description.

Planning Review:

303 (d): Indicate Outfalls which discharge directly to an impaired (Category 5) stream segment and parameters impaired	
All Outfalls discharge to impaired 303d listed streams. Outfall 001 discharges to the impaired lower Blackwater stream segment, VAT-K36R_BLWO5A08. This segment is impaired for Aquatic Life Use — benthics and naturally low DO and for Fish Consumption Use - mercury. Outfall 002 discharges to the middle Blackwater impaired segment, VAT-K36R_BLWO3A08. This segment is impaired for Aquatic Life Use — naturally occurring low DO and Fish Consumption Use —mercury. Outfalls 6,7,10 and 12-14 discharge to impaired segment VAT-K36R_BLWO4A08. This segment is impaired for Aquatic Life Use — naturally occurring low DO, Recreation Use — Ecoli and Fish Consumption Use —mercury. Outfalls 8, 9 and 11 discharge to impaired Unnamed tribs to Blackwater (VAT-K36R_ZZZO 1A00) and 015 to impaired Blackwater segment, VAT-K36R_BLWO2C10. These segments are impaired for Fish Consumption Use —mercury. See Attachment 1 for listed impairments.	
Tier Determination	
Tier	Outfall 001 is maintained as a Tier 1 water based on discharges to impaired stream. See Attachment I.
Tier	Outfalls 008, 009, and 011 discharge to intermittent streams and therefore are a Tier I. All other outfalls a tier cannot be determined since the receiving streams are Category 4C with Aquatic Life Use impairments due to naturally low dissolved oxygen.
Management Plan	
Is the facility Referenced in a Management Plan?	No
Are limits contained in a Management Plan?	No

Review will be completed in 30 days of receipt of request.



2012 Impaired Waters - 303(d) List

Category 5 - Waters needing Total Maximum Daily Load Study

Chowan River and Dismal Swamp Basins

Cause Group Code Impaired Use	Water Name Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Date
K30R-01 -DO Aquatic Life	Darden Mill Run Oxygen, Dissolved	5C			10.37	2002	2014
K30R-01-PH Aquatic Life	Darden Mill Run pH	5C			10.37	2004	2016
K30R-02-BAC Recreation	Nottoway River - Upper Escherichia coli	5A			0.47	2008	2020
K30R-03-BEN Aquatic Life	Nottoway River - Lower Benthic-Macroinvertebrate Bioassessments	5A			15.36	2012	2022
K31R-04-BEN Aquatic Life	Warwick Swamp Benthic-Macroinvertebrate Bioassessments	5A			2.93	2010	2022
K32R-01-BEN Aquatic Life	Blackwater River - Lower Benthic-Macroinvertebrate Bioassessments	5A			1.03	2008	2020
K32R-13-HG Fish Consumption	Blackwater River Basin						
	Mercury in Fish Tissue	5A			33.64	2004	2016
	Mercury in Fish Tissue	5A			25.38	2006	2018
	Mercury in Fish Tissue	5A			528.51	2008	2018
	Mercury in Fish Tissue	5A			282.27	2008	2020
	Mercury in Fish Tissue	5A			214.74	2010	2022
	Mercury in Fish Tissue	5A			1.58	2010	2020
K32R-18-BEN Aquatic Life	Blackwater River, UT						
	Benthic-Macroinvertebrate Bioassessments	5A			3.13	2008	2020
K33R-02-BAC Recreation	Blackwater River - Upper Escherichia coli	5A			18.94	2008	2020
	Escherichia coli	5A			0.91	2012	2022
K33R-02-BEN Aquatic Life	Blackwater River - Upper Benthic-Macroinvertebrate Bioassessments	5A			18.94	2008	2020
K33R-03-BEN Aquatic Life	Blackwater River - Lower Benthic-Macroinvertebrate Bioassessments	5A			4.14	2008	2020
	Benthic-Macroinvertebrate Bioassessments	5A			5.03	2012	2020
K34R-01-PH Aquatic Life	Mill Swamp pH	5C			8.36	2010	2022
K35L-01-DO Aquatic Life	Airfield Pond Oxygen, Dissolved	5C		120.07		2008	2020
K35L-01-HG Fish Consumption	Airfield Pond Mercury in Fish Tissue	5A		120.07		2010	2022
K35R-02-BAC Recreation	Seacock Swamp - Lower Fecal Coliform	5A			2.63	2004	2016



2012 Impaired Waters - 303(d) List

Category 5 - Waters needing Total Maximum. Daily Load Study

Chowan River and Dismal Swamp Basins

Cause Group Code Impaired Use	Water Name Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Date
K35R-02-BEN Aquatic Life	Seacock Swamp - Lower Benthic-Macroinvertebrate Bioassessments	5A			2.63	2008	2020
K35R-03-BAC Recreation	UT Seacock Swamp Fecal Coliform	5A			1.03	2004	2016
K35R-03-DO Aquatic Life	UT Seacock Swamp Oxygen, Dissolved	5C			1.03	2004	2016
K35R-04-BAC Recreation	UT Airfield Pond - Lower Escherichia coli	5A			0.71	2004	2016
K35R-04-DO Aquatic Life	UT Airfield Pond - Lower Oxygen, Dissolved	5C			0.71	2004	2016
K35R-05-BAC Recreation	UT Airfield Pond - Upper Escherichia coli	5A			0.68	2004	2016
K35R-05-DO Aquatic Life	UT Airfield Pond - Upper Oxygen, Dissolved	5C			0.68	2004	2016
K35R-06-BAC Recreation	Seacock Swamp - Upper Fecal Coliform Escherichia coli	5A 5A			0.80 2.45	2006 2012	2018 2022
K35R-07-DO Aquatic Life	Brantley Swamp - Lower Oxygen, Dissolved	5C			3.52	2004	2016
K35R-08-BEN Aquatic Life	Round Hill Swamp Benthic-Macroinvertebrate Bioassessments	5A			0.62	2008	2020
K36R-02-BAC Recreation	Blackwater River - Lower Middle Escherichia coli	5A			6.77	2006	2018
K36R-02-BEN Aquatic Life	Black Creek Benthic-Macroinvertebrate Bioassessments	5A			4.16	2008	2020
K36R-03-BAC Recreation	Black Creek - Upper Escherichia coli	5A			1.23	2010	2022
K36R-04-BAC Recreation	Cypress Swamp Escherichia coli	5A			4.90	2012	2024
K36R-04-BEN Aquatic Life	Unsegmented Tributary to. Blackwater Benthic-Macroinvertebrate Bioassessments	5A			2.69	2008	2020
K36R-05-BEN Aquatic Life	Blackwater River - Upper Benthic-Macroinvertebrate Bioassessments	5A			2.41	2012	2024
K36R-06-BEN Aquatic Life	Blackwater River - Lower Benthic-Macroinvertebrate Bioassessments	5A			4.36	2012	2024
K38R-01-BEN Aquatic Life	Somerton Creek Benthic-Macroinvertebrate Bioassessments	5A			9.09	2006	2018

Appendix 5 - List of Impaired (Category 5) Waters in 2012

Chowan River and Dismal Swamp Basins

Cause Group Code: **K32R-13-HG**

Blackwater River Basin

Location: Blackwater River and tributaries from its headwaters to the VA-State Line

City / County: Dinwiddie Co	Isle Of Wight Co	Petersburg City	Prince George Co	South Boston City
Southampton Co	Suffolk City	Surry Co	Sussex Co	

Use(s): Fish Consumption

Cause(s) /

VA Category: Mercury in Fish Tissue / 5A

During the 2006 cycle, the Blackwater River from Route 31 near Dendron downstream to the Virginia-North Carolina state line was assessed as impaired of the Fish Consumption Use due to a VDH fish consumption advisory for mercury.

During the 2008 cycle, the advisory was expanded on 8/31/2007 to include the Blackwater River to its headwaters, including all of its tributaries. The advisory currently recommends consuming no more than two meals/month of largemouth bass, sunfish species, bowfin, chain pickerel, white catfish, redhorse sucker and longnose gar.

The advisory is based on the results of DEQ's fish tissue monitoring program, which show mercury exceedances at multiple stations throughout the watershed, including 5ABKR003.68, 5ABKR002.33, 5AWKS013.53, 5ASEC005.39, 5ABLW074.66, 5ACPP004.04, 5ACPP007.86, 5AJCH000.73.

Blackwater River Basin	Estuary	Reservoir	River
Fish Consumption	(Sq. Miles)	(Acres)	(Miles)
Mercury in Fish Tissue - Total Impaired Size by Water Type:			111111111111

Sources:

Atmospheric Deposition - Toxics	Source Unknown
------------------------------------	----------------

Appendix 5 - List of Impaired (Category 5) Waters in 2012

Chowan River and Dismal Swamp Basins

Cause Group Code: **K36R-02-BAC**

Blackwater River - Lower Middle

Location: This cause encompasses the lower Blackwater River from RM 13.76 (downstream of Franklin, confluence of UT, parallel to Hayden High School) downstream west of Union Camp Holding Pond.

City / County: Isle Of Wight Co Southampton Co

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The Recreation Use is impaired based on E.coli data (5/38, 4/30, 6/36, 5/31, 9/37) at DEQ (AQM) stations @ 5ABLW009.14, 5ABLW011.48, 5ABLW012.28, 5ABLW012.96, 5ABLW013.16.

Blackwater River - Lower Middle
Recreation

Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
------------------------	----------------------	------------------

Escherichia coli - Total Impaired Size by Water Type:		6.77
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Sources:

Source Unknown

Appendix 5 - List of Impaired (Category 5) Waters in 2012

Chowan River and Dismal Swamp Basins

Cause Group Code: **K36R-06-BEN**

Blackwater River - Lower

Location: This cause encompasses the area From Cox Landing downstream to RM 0.65 (at Suffolk City & Gates County line).

City / County: Isle Of Wight Co Southampton Co

Use(s): Aquatic Life

Cause(s) I

VA Category: Benthic-Macroinvertebrate Bioassessments 15A

The Aquatic Life Use is impaired based on Benthic IM [MI:F-'05,06,08 S-08] at Station 5ABLW001.10.

Blackwater River - Lower	Estuary	Reservoir	River
Aquatic Life	(Sq. Miles)	(Acres)	(Miles)
Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:			4.36

Sources:

Source Unknown



2012 List of Naturally Impaired Waters (Category 4C)* No TMDL Needed

Chowan River and Dismal Swamp Basins

Cause Group Code Impaired Use	Water Name	Cause Cause	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
K32R-11-DO Aquatic Life	XDR - UT to Otterdam Swamp Oxygen, Dissolved	4C			2.61
K32R-15-DO Aquatic Life	Spring Branch, UT (XAW) Oxygen, Dissolved	4C			1.07
K32R-16-DO Aquatic Life	Spring Branch, UT (XAL) Oxygen, Dissolved	4C			0.72
K33R-02-DO Aquatic Life	Blackwater River - Upper, Middle, Lower Oxygen, Dissolved	4C			23.99
K34R-01-DO Aquatic Life	Mill Swamp Oxygen, Dissolved	4C			8.36
K34R-02-DO Aquatic Life	Rattlesnake Swamp Oxygen, Dissolved	4C			6.09
K35R-01-DO Aquatic Life	Seacock Swamp - Upper Oxygen, Dissolved	4C			0.80
K36R-01-DO Aquatic Life	Blackwater - Lower Middle Oxygen, Dissolved	4C			10.21
K36R-02-DO Aquatic Life	Blackwater River - Lower Middle Oxygen, Dissolved	4C			8.19
K36R-03-DO Aquatic Life	Washole Creek Oxygen, Dissolved	4C			0.64
K37R-01-DO Aquatic Life	Buckhorn Creek Oxygen, Dissolved	4C			1.55
K37R-01-PH Aquatic Life	Buckhorn Creek pH	4C			1.55
K38R-01-DO Aquatic Life	Somerton Creek Oxygen, Dissolved	4C			9.09
K39R-01-DO Aquatic Life	Dismal Swamp Canal & Feeder Ditch to Lake Drummond Oxygen, Dissolved	4C			17.58
K41R-02-DO Aquatic Life	Milldam Creek - Lower Oxygen, Dissolved	4C			2.50
K41R-05-DO Aquatic Life	West Neck Creek - Middle Oxygen, Dissolved	4C			3.59
K42E-01-DO Aquatic Life	Nawney Creek - Upper Oxygen, Dissolved	4C	0.022		

VIRGINIA

Draft 305(b)/303(d)

WATER QUALITY INTEGRATED REPORT

to

CONGRhSS and the EPA ADMINISTRATOR

for the

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January 1, 2005 to December 31, 2010



\\ .li :(ti DEPARTMENT OF
ENVIRONVIE,NTAL.. QUALITY



Department o Lonservation & Recreation

5.E.E0₇'!Nt., \\TUP..-V AND 1², ECRLATIONAL RESOURCES

Richmond, Virginia

March 2012

z r,
TMDL Permit Review

Date: 07/07/2015

To: Jennifer Howell, TRO

4 JSH 7/24/2015

Permit Writer: Debbie Thompson

Facility: International Paper - Franklin Mill

Permit Number: VA0004162

Issuance, Reissuance or Modification (if Modification describe) : Reissue

Permit Expiration Date: 11/15/2015

Waterbody ID (ex: VAT-G15E): VAT-K36R

Topo Name: Riverdale 05C

Facility Address:

34040 Union Camp Drive, Franklin, VA 23851 — note — facility address is approx. 7 miles from the actual discharge location. Lat Long of discharge location is 36 34 08 76 53 09.

Receiving Stream: Attached are topographic maps showing facility property boundaries and outfall(s) locations for those included in this request.

Stream Name: Blackwater River	
h	
Outfall #: 001	Lat Lon: 36 34 08 76 53 09
Outfall #: CL..'	Lat Lon: : "lick; het e t=
Outfall #:	Lat Lon: Click here to
Stream Name (2):	
Outfall #: ,	Lat Lon: (
Outfall #:	Lat Lon:
Outfall #:	Lat Lon: (

If greater than 2 receiving streams or 3 outfalls per stream please provide a separate table with outfall listings and Latitude Longitude description.

Is there a design flow change? If yes give the change.

TMDL Review:

Is a TMDL IN PROGRESS for the receiving stream? No	
Has a TMDL been APPROVED that includes the receiving stream?	
A Natural Conditions report has been written and approved by EPA for low DO conditions in the Blackwater River watershed. See "Additional Comments" below.	
If yes, Include TMDL Name, Pollutant(s) and date of approval:	
NA	
Is the facility assigned a WLA from the TMDL?	NA
If Yes, what is the WLA?	
NA	

Review will be completed in 30 days of receipt of

request. Additional Comments:

*A Natural Conditions assessment was completed to confirm the DO impairments are due to natural conditions and therefore the development of a TMDL is not required. (Blackwater Dissolved Oxygen Assessment for Blackwater Swamp Waters: Approved 4/8/2010 *See TMDL Attachment 1) The current Assessment Category is "4C - Not needing a TMDL". During the next Triennial Review, this section of the Blackwater River is proposed to be changed*

TMDL Permit Review

MAIPPV4126SUNJAMINE

from a Class 11 to a Class VII swamp water. Part of the Natural Conditions process is to determine anthropogenic impacts, if any, to the impairments. IP VA0004162 was identified as a point source discharging into the Blackwater River. Even so, data from the facility showed that it was very well controlled and not impacting the DO levels in the River. However, this process was completed prior to the facility modifying its permit and subsequently having it reissued in 2015. Because of the modification to the facility and permit, every effort should be made to maintain the reduced anthropogenic input and continue to be very well controlled so they do not impact the dissolved oxygen levels. It is recommended that the facility perform DO sampling at the representative outfalls.

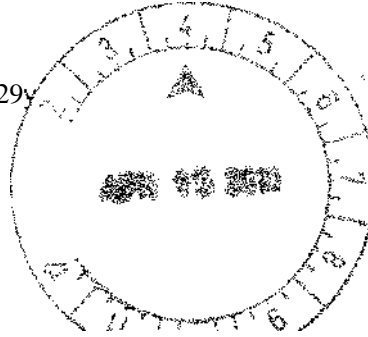
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 REGION III
 1650 Arch Street
 Philadelphia, Pennsylvania 19103-2029

Ellen Gilinsky, Ph.D., Director
 Division of Water Quality Programs
 Virginia Department of Environmental Quality 629
 P.O. Box 1105
 Richmond, Virginia 23218



Dear Dr. Gilinsky:

The U.S. Environmental Protection Agency (EPA) has reviewed the Virginia Department of Environmental Quality's (VADEQ) *Dissolved Oxygen (DO) Assessment for Blackwater Swamp Waters*, which addresses six Consent Decree segments currently listed as impaired for dissolved oxygen on Virginia's 2008 Section 305(b)/303(d) Integrated Report. VADEQ performed this assessment to confirm that all six segments (Blackwater River (Upper), Blackwater River (Middle, Lower-Middle, Lower, Mouth), Mill Swamp, Rattlesnake Swamp, Upper Seacock Swamp and Carrara Creek) are impaired due to natural conditions and do not require the development of a Total Maximum Daily Load (TMDL). VADEQ is therefore requesting that these segments be placed in Category 4C of Virginia's 2010 Section 305(b)/303(d) Integrated Report.

As indicated in your assessment, Blackwater River (Upper), Mill Swamp, Rattlesnake Swamp, Upper Seacock Swamp, and Carrara Creek are currently classified as Class VII Swamp Waters in Virginia's Water Quality Standards. The Class VII designation applies to naturally occurring swamp waters with dissolved oxygen values that may exceed the criteria required for Class I through VI waters. There are no numeric dissolved oxygen criteria for Class VII waters because dissolved oxygen exceedances are a result of natural conditions and are not due to anthropogenic activities. Dissolved oxygen TMDLs are, therefore, not required for Class VII waters. Based upon this information, EPA approves your request to place Blackwater River (Upper), Mill Swamp, Rattlesnake Swamp, Upper Seacock Swamp, and Carrara Creek in Category 4C of Virginia's 2010 Section 305(b)/303(d) Integrated Report.

Blackwater River (Middle, Lower-Middle, Lower, Mouth) is the only segment in the assessment that is currently classified as a Class II Estuarine Water in Virginia's Water Quality Standards. The dissolved oxygen criteria for Class II waters require a minimum concentration of 4.0 mg/l and a 30-day average concentration of 5.0 mg/l. VADEQ's, *Procedure for Natural Condition Assessment of pH and Dissolved Oxygen in Virginia Streams: October 2004*, was used to determine whether the dissolved oxygen impairments in the Blackwater River (Middle, Lower-Middle, Lower, Mouth) are being caused by naturally occurring conditions or by anthropogenic

•icli% dies. ro make this determination. Virginia's anlvsis of the dissolved oxygen impairment
)is conducted using the following procedure:

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• C.V id

Findings: he assessment or i'd,lawater River (Middle, Lower-Middle. Lower. Mouth) revealed swampy water conditions charaeteriyed by very low slopes (<0.01".i) and low velocity flows. Water in the segment also had a distinctive color (>50 PT (_olor, resembling dark tea) that is indicafivc of swamp conditions. This coloration is common in swamps and wetlands and is cAb4...d by ihe decomposition of plant material that produces fulvie and humic acids.

Step 2. Determine nutrient levels and compare with U.S. Geological Survey (USGS) background concentrations.

High nutrient levels are an indication r?lanthropogenic inputs of nitrogen, phosphorus, and possibly organic matter. Streams with average concentrations of nutrients greater than the national background concentrations Ygy) should he evaluatcdfir potential iImpacts /ram cmthropogenie sources.

Findings: Mean nutrient concentrations for two of the three nutrients that were monitored - total nitrogen (TN) and total phosphorus (TP) - were slightly above the USGS national average background concentrations. Average TN concentrations exceeded the USGS screening values at four of 16 monitoring stations, while average TP exceeded the screening values at one of 16 stations. That said, further evaluation determined that elevated nutrient levels are not having an impact on dissolved oxygen levels in the Blackwater River (Middle, Lower-Middle, Lower, Mouth), as explained in Step 4.

Sten 3. Determine degree of seasonal fluctuation of dissolved oxygen levels.

weak seasonal pattern (.t odd indicate that human inputs from point id nt)lli³Oilt sources ore impat ring the seasonal cmcle riissolvcd oxy.sz, It. A seasoluil anlvsis ;mot nu/ucted to verifi• t1 ,nsistent scasinid Or dissolved oxygen levels.*

Findings: Dissolved oxygen was assessed for seasonal fluctuations using, foods median test. The results indicated that dissolved oxygen shows consistent seasonality.

Step . Determine andiropiigene impacts such as permitted dischargers

,hoffici he made to 1,lentli human impacts alai :

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fmcentrars.

Findings: (here are two point sources mseh.irging nutrients into the Pluck water R Lower-Nliddc. Lower. Mouth), including the City 011-ranklin WastewittLI I rcatment Plant - VAM)23922. arad International Paper - \`A0004 62. Data from these 'acuities show that they very ell controlled and are not impacting dissol ed ox

levels in the Blackwater River (Middle, Lower-Middle, Lower, Mouth). Dissolved oxygen concentrations measured at 16 monitoring stations throughout the segment are consistent; show no change at or below the permitted discharge points, where the impact from anthropogenic sources would most likely be found. USFWS also noted that the International Paper Mill is scheduled to shut down in April 2010, which will result in substantial reductions in nutrient loading to the river. In addition, excess organic matter was shown not to be excessive due to the fact that five-day biochemical oxygen demand concentrations were well below the maximum concentration criteria, 11.4 mg/l, at all monitoring stations. Based upon these results, (there is no indication that anthropogenic activities are exacerbating) the naturally low dissolved oxygen levels in the Blackwater River (Middle, Lower-Middle, Lower, Mouth).

Upon review of VADEQ's *Dissolved Oxygen* and *et for Blackwater Swamp Waters*, EPA approves VADEQ's request to place the dissolved oxygen impairments in all six Consent Decree segments under Category 4C of Virginia's 2010 Section 305(b)(3)(D)/303(d) Integrated Report. VADEQ has demonstrated that the dissolved oxygen impairments are occurring naturally, and do not warrant the development of a TMDL. In addition, it is EPA's understanding that VADEQ will request that Blackwater River (Middle, Lower-Middle, Lower, Mouth) be formally reclassified as a Class VII Swamp Water during the next triennial review of Virginia's Water Quality Standards.

If you have any questions or comments please call me, or have your staff contact Greg Wright, at 215-814-5737.

Sincerely,



John Capacasa, Director
Water Protection Division

cc:

VADEQ

Dissolved Oxygen Assessment for Blackwater Swat Waters Section
305(b)/303(d) Listing History

Location	Assessment	Parameter	VAT	Category	Value	Category	Notes
61. "le(upper) F"	No TMDL	Urssoiveo oxy!	VAT-K33R	VAT-K33R-02	01551	K32R-13-DO	%MR DL) A0u VA -K33RBLWC::/04 VAI- K33R_E3LVVG3,-,t,E;
Class VII Swamp Water I	Move i;) Categori_ry 4C		VAT-K33P.'				VAT-K36RBLVV02A08 VAT-K36R_BLVVO3A06 VAT-K36R_BLW08A08 VAT-K36R_BLW04A08 VAT-K36R_BLW05A08 VAT-K36R_VVACO1A08
Blackwater H. ...r (middle, . low... middle. low,i inouths,	No TMDL Class 0 Estuarine Water 4C Move Io Category	Dissolved Oxygen	VAT-K36R"	VAT-K36R-01	00639	K32R-13-DO	
MW Swamp	No TMDL Class VII Swamp Water Move to Category 4C t	Dissolved Oxygen	VAT-K34R'	VAT-K34R	VAT-K34R-01	00636	K34R-01-DO VAT-K34R_MSW01A00
F-tattlesnake Swan;;'	No TMDL Class VII Swamp Water j MiDvt to Category 4C	Dissolved Oxygen	VAT-K34R"	VAT-K34R	VAT-K34R-02	00637	K34R-02-DO VAT-K34R_RKNO1A02
Upper Swanip	No TMDL C;;,..., VII ::;wimp Water Move to Category 4C	Dissolved Oxygen	VAT-K35R'	VAT-K35R	VAT-K35R-01	00638	K35R-01-DO iVAT-K35R_'::;CK01A00
arrara Coe,,r	No TMDL Class VII Swamp Water ! Move to Category 4C	Dissolved i OxyEm	VAT-K13R"	VAT-K13R	VAT-K13R-01	00634	K13R-01-DO j VAT-K13R_IRRO1A00

ATTACHMENT 11

TABLE III (a) AND TABLE III (b) -
CHANGE SHEETS

TABLE III(a)

VPDES PERMIT PROGRAM
Permit Processing Change Sheet

1, Effluent Limits and Monitoring Schedule: (List any changes FROM PREVIOUS PERMIT and give a brief rationale for the changes).

OUTFALL NUMBER	PARAMETER CHANGED	MONITORING LIMITS CHANGED FROM FROM / TO	EFFLUENT LIMITS CHANGED FROM / TO	RATIONALE	DATE & INITIAL
001	TSS	No change	261 avg, 522 max to the following: Phase I 292 avg 584 max Phase II 307 avg 614 max Phase III 305 avg 610 max Phase IV 310 avg 620 max	New process caused recalculation of Fed Eff Guideline limits, calculated in four phases to correspond to the phases of new process implementation	DLT 6/15
001	BOD	No change	127 avg, 254 max to the following: Phase I 143 avg 286 max Phase II 155 avg 310 max Phase III 149 avg 298 max Phase IV 152 avg 304 max	New process caused recalculation of Fed Eff Guideline limits, calculated in four phases to correspond to the phases of new process implementation	DLT 6/15
001	Dioxin (2,3,7,8-TCDD)	No change	1.1×10^{-5} lb/season to 0.19×10^{-5} lb/season ,	Revised Dioxin criteria for VA and NC resulted in recalculation of limits	DLT 6/15
001	AOX	No change	Current production 920 ADTPD Annual Avg Concentration 133 mg/l to 21 mg/l Daily Max Concentration 280 mg/l to 47 mg/l Mass Seasonal Max Limit of 723,000 lb/yr to 175,000 lb/yr	F Bleach Line is only line currently active. Recalculation due to line closure of other 2 bleach lines. Eff Guidelines are unchanged	DLT 6/15

OUTFALL NUMBER	PARAMETER CHANGED	MONITORING LIMITS CHANGED FROM / TO	EFFLUENT LIMITS CHANGED FROM / TO	RATIONALE	DATE & INITIAL
103	Chloroform	No change	Monthly Avg 3650 g/day to 3463 g/day Daily Max 6100 g/day to 5788 g/day	Recalculation based on F Bleach Line production changes (From 970 T/day to 920 T/day)	DLT 6/15
001	Ammonia- Nitrogen	1/w to 1/Month	No change	Ammonia limit recalculation resulted in a higher limit; due to anti- backsliding regs, current limit remains; data consistently ND, therefore reduction in monitoring frequency warranted; BPJ.	DLT 9/15

OTHER CHANGES FROM:	CHANGED TO:	DATE & INITIAL
New Discharge Characterization for Outfall 001	DELETE: OF 001 was characterized in application	DLT 7/15
Form 2F Sampling	DELETE: OF 009 was characterized on 2F application	DLT 7/15
ADD Review by FWS and DCR for Threatened & Endangered Species	Review did not generate comments requiring changes to the permit	DLT 8/15
SW Quarterly Visuals	ADD: in accordance with updated SW conditions	DLT 9/15
BMP's for Pulp and Paper Industry	Updated/revised for reissuance	DLT 7/15
TMP	Updated/revised as needed based on data	DLT 7/15
SW Management Condition	Updated/revised as appropriate for Mill operations	DLT 7/15

TABLE III (b)

VPDES PERMIT PROGRAM
Permit Processing Change Sheet

1. Effluent Limits and Monitoring Schedule: (List any changes MADE DURING PERMIT PROCESS and give a brief rationale for the changes).

OUTFALL NUMBER	PARAMETER CHANGED	MONITORING LIMITS CHANGED FROM / TO	EFFLUENT LIMITS CHANGED FROM / TO	RATIONALE	DATE & INITIAL
001					

OTHER CHANGES FROM:	CHANGED TO:	DATE & INITIAL

ATTACHMENT 12

NPDES INDUSTRIAL PERMIT RATING WORKSHEET

NPDES Permit Rating Work Sheet

NPDES NO: 1 V LA 1 0 1 0 1 0 1 4 1 ¹ 1 ⁶ 1 ² 1

Facility Name:

```

_X      Regular Addition
        Discretionary Addition
        Score change, but no
        status change
Deletion

```

I I I N I T I E R I N I A I T I I 1 0 1 N I A I L I P I A I P I E I R I I Franklin

City:1F IR IA IN 1K IL 11 IN | | | | | | | | | | | | | | | | 1 | | |

[illegible]

Reach Number: 1 1 1 1 1 1 | | | |

Is this facility a steam electric power plant (SIC=4911) with one or more of the following characteristics?

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

1. Power output 500 MW or greater (not using a cooling pond/lake)
2. A nuclear power plant
3. Cooling water discharge greater than 25% of the receiving stream

YES; score is 700 (stop here)
X NO (continue)

YES: score is 600 (stop here) X NO (continue)

FACTOR 1: Toxic Pollutant Potential

PCS SIC Code: 1²1⁶1²1¹1 Primary SIC Code: 1²1⁶1²1¹1

Other SIC Codes: 1 2 1 6 1 1 1 1 1 1 2 1 6 1 3 1 1 1 1 2 1 6 1 7 1 9 1 1 1 1 1 1

Industrial Subcategory Code: 1 1 (Code 000 if no subcategory)

Determine the Toxicity potential from Appendix A. Be sure to use the TOTAL toxicity potential column and check one

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
No process			3.	3	15	7.	7	35
waste streams 0		0	4.	4	20	8.	8	40
1.	1	5	5.	5	25	9.	9	45
2.	2	10	6.	6	30	10.	10	50

Code Number Checked: 1 0 1 5 1

Total Points Factor 1: 1 2 1⁶ 1

FACTOR 2: Flow/Stream Flow Volume *(Complete Either Section A or Section B; check only one)*

Section A--Wastewater Flow Only Considered

Section B--Wastewater and Stream Flow Considered

Wastewater Type (See Instructions)	Code	Points	Wastewater Type (See Instructions)	Percent of Instream Wastewater Concentration at Receiving Stream Low Flow	Code	Points
Type I: Flow < 5 MGD	11	0	Type I/III:	< 10%	41	0
Flow 5 to 10 MGD	12	10				
Flow > 10 to 50 MGD	13	20				
Flow > 50 MGD	14	30				
Type II: Flow < 1 MGD	21	10	Type II:	> 10% to < 50%	42	10
Flow 1 to 5 MGD	22	20		> 50%	43	20
Flow > 5 to 10 MGD	23	30		<10%	51	0
Flow > 10 MGD	24	50		> 10% to < 50%	52	20
Type III: Flow < 1 MGD	31	0		> 50%	_x_ 53	30
Flow 1 to 5 MGD	32	10				
Flow > 5 to 10 MGD	33	20				
Flow > 10 MGD	34	30				

Code Checked from Section A or B: 1_5_1_3_1

Total Points Factor 2: 1 3 1 0 1

NPDES Permit Rating Work Sheet

NPDES No.:

FACTOR 3: Conventional Pollutants

(only when limited by the permit)

A. Oxygen Demanding Pollutant: (check one) ☒ BOD COD Other: _____

Permit Limits: (check one)		Code	Points	
<input type="checkbox"/> < 100 lbs/day		1	0	
<input type="checkbox"/> 100 to 1000 lbs/day		2	5	
<input type="checkbox"/> >1000 to 3000 lbs/day		3	15	
<input checked="" type="checkbox"/> >3000 lbs/day		4	20	

Code Checked: 1_4_1

Points Scored: 1_2_1_0_1

B. Total Suspended Solids (TSS)

Permit Limits: (check one)		Code	Points	
<input type="checkbox"/> < 100 lbs/day		1	0	
<input type="checkbox"/> 100 to 1000 lbs/day		2	5	
<input type="checkbox"/> >1000 to 5000 lbs/day		3	15	
<input checked="" type="checkbox"/> >5000 lbs/day		4	20	

Code Checked: 1_4_1

Points Scored: 1_2_1_0_1

C. Nitrogen Pollutant: (check one) Ammonia Other: _____

Permit Limits: (check one)		Code	Points	
<input type="checkbox"/> < 300 lbs/day		1	0	
<input type="checkbox"/> 300 to 1000 lbs/day		2	5	
<input type="checkbox"/> >1000 to 3000 lbs/day		3	15	
<input checked="" type="checkbox"/> >3000 lbs/day		4	20	

Code Checked: 1_4_1

Points Scored: L2_1_01

Total Points Factor 3: 1_6_1_0_1

FACTOR 4: Public Health Impact

Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this includes any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above referenced supply.

YES (if yes, check toxicity potential number below) ☒ NO (if no, go to Factor 5)

Determine the human health toxicity potential from Appendix A. Use the same SIC code and subcategory reference as in Factor 1. (Be sure to use the human health toxicity group column -- check one below)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
No process waste streams	0	0	3.	3	0	7.	7	15
1.	1	0	4.	4	0	8.	8	20
	2	0	5.	5	5	9.	9	25
			6.	6	10	10.	10	30

Code Number Checked: I I

Total Points Factor 4: I I I

NPDES Permit Rating Work Sheet

NPDES No.: Ly j j_0_1_0_1_0 1_2_I

FACTOR 5: Water Quality Factors

- A. Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-based federal effluent guidelines, or technology-based state effluent guidelines), or has a wasteload allocation been assigned to the discharge?

	Code	Points
X Yes 1		10
No 2		

- B. Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?

	Code	Points
X Yes 1		0
No 2		5

- C. Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?

	Code	Points
X Yes 1		10
No 2		

Code Number Checked: A 1_1_1 B1_1_1 C
Points Factor 5: A 1_1_1_0_1 B1_0_1 C1_0_1_0_I = 1_1_1_0_1 TOTAL

FACTOR 6: Proximity to Near Coastal Waters

- A. Base Score:
multiplication factor that corresponds

Enter flow code here (from Factor 2): 1_5 1_3 1 Enter the
to the flow code: I _I_6 I

Check appropriate facility HPRI Code (from PCS):

HPRI #	Code	HPRI Score	Flow Code	Multiplication Factor
		20	11, 31, or 41	0.00
			12, 32, or 42	0.05
2	2	0	13, 33, or 43	0.10
			14 or 34	0.15
X_3	3	30	21 or 51	0.10
			22 or 52	0.30
4	4	0	23 or 53	0.60
			24	1.00
5	5	20		

HPRI code checked: 1_3_1

Base Score: (HPRI Score) _30_ x (Multiplication Factor) 0.6 = ____ 5 ____ (TOTAL POINTS)

B. Additional Points--NEP Program

For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions) or the Chesapeake Bay?

	Code	Points
X Yes 1		10
No 2		0

Code Number Checked: A 1_3_I
Points Factor 6: A 1_0_1_5_1

C. Additional Points--Great Lakes Area of Concern

for a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 areas of concern (see instructions)

	Code	Points
X Yes 1		10
No 2		0

B C1_21
B1_1_1_0 + C1_0_1_0_1 1____15____ I TOTAL

12-4

NPDES Permit Rating Work Sheet

NPDES NO: I_V_I_A_I_O_I_O_L_O_±⁴_1_1_6_1_2_1

SCORE SUMMARY

Factor Description	Total Points
1 Toxic Pollutant Potential	25 _____
2 Flow/Stream flow Volume _____	30 _____
3 Conventional Pollutants	60 _____
4 Public Health Impacts _____	- _____
5 Water Quality Factors _____	10 _____
6 Proximity to Near Coastal Waters	15 _____
TOTAL (Factors 1-6) _____	140 _____

Si. Is the total score equal to or greater than 80? x_ Yes (Facility is a major) No

S2. If the answer to the above question is no, would you like this facility to be discretionary major? No
Yes (add 500 points to the above score and provide reason below:

Reason:

NEW SCORE: 140 _____

OLD SCORE: 140 _____

heiehiL ,c)'⁹ *Thompson*

Permit Reviewer's Name

(757) 518-2162
Phone Number

June 30, 2015

Date


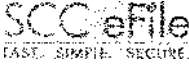




ATTACHMENT 13

Public Participation/
Pertinent Correspondence

f J

Your web browser is not supported by SCC eFile and some features may not be available. Click the link for a list of [compatible browser versions](#).

An ALERT to Virginia Corporations Regarding Solicitations from VIRGINIA COUNCIL FOR CORPORATIONS or ANNUAL BUSINESS SERVICES is available from the BuBeth Archive link of the Clerk's Office website

Home Site Map About SCC Contact SCC Privacy Policy 	
Entity Search Entity Details	
Loan Create an Account	
<div>  <div> SCC eFile Business Entity Details </div> <div> Help </div> </div>	
TAK INVESTMENTS, INC.	
<div> SCC eFile SCC eFile Home Page Check Name Distinguishability Business Entity Search Certificate Verification FAQs Contact Us Give Us Feedback </div> <div> easiness Entities UCC or Tax Liens Court Services Additional Services </div>	<div> General SCC ID: F1886938 Entity Type: Foreign Corporation Jurisdiction of Formation: DE Date of Formation/Registration: 2/13/2012 Status: Active Shares Authorized: 1000 </div> <div> Principal Office 401 PROFESSIONAL DRIVE STE. 110 GAITHERSBURG MD20879 </div> <div> Registered Agent/Registered Office CORPORATION SERVICE COMPANY 1111 E MAIN ST 16TH FL RICHMOND VA 23219 RICHMOND CITY 216 Status: Active Effective Date: 2/13/2012 </div> <div> Screen ID: c1000 <small>View additional information? For more details, please visit the Web site. Contact: webmaster@sccefile.com</small> <small>We provide external links throughout our site.</small>  PDF (Adobe Reader)  Excel (Microsoft Excel)  PowerPoint (Microsoft PowerPoint)  Word (Microsoft Word) </div>
<div> File a registered agent change File a registered office address change itesigniggiggEgcLogpilt File an annual report Pay annual registration fee Order a certificate of good standing View eFile transaction history Manage email notifications </div>	



COMMONWEALTH of VIRGINIA

Marissa J. Levine, MD, MPH,FAAFP
State Health Commissioner

John J. Aulbach II, PE
Director, Office of Drinking Water

DEPARTMENT OF HEALTH
OFFICE OF DRINKING WATER

Southeast Virginia Field Office

830 Southampton Avenue
Suite 2058
Norfolk, VA 23510
Phone (757) 683-2000
Fax (757) 683-2007

DATE: *DBH* June 17, 2015
FROM: *DBH* Daniel B. Home, PE, Engineering Field Director
TO: Debra L. Thompson, Environmental Specialist
Senior DEQ Tidewater Regional Office 5636
Southern Boulevard
Virginia Beach, Virginia 234562

CITY/COUNTY: Isle of Wight County

APPLICANT: Mr. Charles L. Hairston, Mill Manager, International
Paper — Franklin Mill

PERMIT TYPE: VPDES

APPLICATION TYPE: Re-Issuance (Existing)

PROJECT: International Paper — Franklin Mill

SUBJECT: Review response for DEQ's permit application #VA0004162

Our office has reviewed the application for impacts to surface waters associated with the operation of a paper mill. The discharge will be to the Blackwater River in Isle of Wight County.

No public raw water intakes in Virginia were found downstream from the discharge area. The nearest upstream raw water intake is located approximately 12 miles from the discharge area. The name of the facility is the Blackwater River Raw Water intake (73DWIS Facility Code !NMI.), owned ^{by} the City of Norfolk, and operated under PWSID 3710100. Since the receiving water is not tidal influenced, there should be no impact to the intake.

EGJ/shb

cc: VDH, ODW — Central Office
VDH, City of Norfolk Health Department
Ms. Kristen M. Lentz, PE, Director of Utilities, City of Norfolk
Mr. Charles L. Hairston, Mill Manager, International Paper — Franklin Mill



VIRGINIA DEPARTMENT OF HEALTH

and Your Environment

RADIST20A \Isle of Wight \ International Paper\VPDES AL jun15.docx Protecting You

WWW.VDH.VIRGINIA.GOV





COMMONWEALTH of VIRGINIA

Department of Health
DIVISION OF SHELLFISH SANITATION

109 Governor Street, Room 614-B
• Richmond, VA 23219

Ph: 804-864-7487
Fax: 804-864-7481

MEMORANDUM

DATE: 6/22/2015
TO: Debra L. Thompson
Department of Environmental Quality
FROM: B. Keith Skiles, MPH, Director
Division of Shellfish Sanitation

SUBJECT: International Paper - Franklin Mill

City / County: Franklin, VA

Waterbody: Blackwater River

Type: V.; VPDES VMRC VPA VWP JPA Other:

Application / Permit Number: VA0004162

se The project will not affect shellfish growing waters.

The project is located in or adjacent to approved shellfish growing waters, however, the activity as described will not require a change in classification.

The project is located in or adjacent to condemned shellfish growing waters and the activity, as described, will not cause an increase in the size or type of the existing closure.

The project will affect condemned shellfish waters and will not cause an increase in the size of the total condemnation. However, a prohibited area (an area from which shellfish relay to approved waters for self-purification is not allowed) will be required within a portion of the currently condemned area. See comments.

A buffer zone (including a prohibited area) has been previously established in the vicinity of this discharge, however, the closure will have to be revised. Map attached.

This project will affect approved shellfish waters. If this discharge is approved, a buffer zone (including a prohibited area) will be established in the vicinity of the discharge. Map attached.

Other.

ADDITIONAL
COMMENTS:

Area #:
eta

Thompson, Debra (DEQ)

From: Hillman, Brett [brett_hillman@fws.gov]
Sent: Thursday, August 13, 2015 10:04 AM
To: Thompson, Debra (DEQ)
Subject: Re: T&E Coordination for International Paper-Franklin Mill - VPDES Permit No. VA0004162

Hi Debbie,

After reviewing all of the materials you provided, I have no comments with respect to federally listed species in Virginia. However, since the discharge from this facility flows into North Carolina, we recommend you coordinate with Sarah McRae (sarah.mcrae@fws.gov) of the Raleigh Ecological Services Field Offices regarding the potential for federally listed species in North Carolina to be impacted by this permit.

Best regards,
Brett

Brett Hillman
Fish and Wildlife Biologist
U.S. Fish & Wildlife Service
Virginia Field Office
6669 Short Lane
Gloucester, VA 23061

Phone: 804-824-2420
Fax: 804-693-9032
Email: brett.hillman@fws.gov

On Wed, Aug 12, 2015 at 3:25 PM, Hillman, Brett <brett_hillman@fws.gov> wrote:
Thanks so much for the quick response! This info will definitely be helpful as I continue this review.

Brett Hillman
Fish and Wildlife Biologist
U.S. Fish & Wildlife Service
Virginia Field Office
6669 Short Lane
Gloucester, VA 23061

Phone: 804-824-2420
Fax: 804-693-9032
Email: brett.hillman@fws.gov

On Wed, Aug 12, 2015 at 3:07 PM, Thompson, Debra (DEQ) <Debra.Thompson@deq.virginia.gov> wrote: Hi
Brett,

The DP and FS for the reissuance are not yet ready to send out for review or information. I have attached the current permit and associated FS; it was actually developed and modified in 2012 at the time the plant was put back into operation after closing some years prior to 2012.

Regarding the comment letter you attached, DEQ did not extend the discharge season as requested by IP. The special condition section of the permit (#13) does address the opportunity for the company to request an emergency discharge and identifies the requirements necessary for DEQ to consider such a request.

I hope this information is helpful; please let me know if I can provide any additional information or assistance, Debbie

From: Hillman, Brett [<mailto:brett.hillman@fws.gov>] Sent:
Wednesday, August 12, 2015 2:20 PM

To: Thompson, Debra (DEQ)
Subject: Re: T&E Coordination for International Paper-Franklin Mill - VPDES Permit No. VA0004162

Hey Debbie,

I have a couple of questions about this permit so far:

- 1) When you get a chance, could you please send me the current permit and fact sheet (or the drafts for the next permit cycle if those are available)?
- 2) In 2008, my predecessor, Cindy Kane, sent the attached letter to DEQ. It looks like IP wanted to extend their wastewater discharge season but we had some concerns about that. I can't tell what happened after Cindy sent this letter. Do you have any information about this issue?

Thanks in advance!

Brett

Molly Joseph Ward
Natural Resources

Clyde E. Cristman
Director



Joe Elton
Operations

Rochelle Altholz
Deputy Director
Administration and Finance

David Dowlin,
Deputy Director
Dam Safety

COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

MEMORANDUM

DATE: August 25, 2015
TO: Debra Thompson, DEQ-TRO
FROM: Alli Baird, DCR-DNH
SUBJECT: VA0004162. International Paper — Franklin Mill Permit Reissuance Due August 28, 2015

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

Outfalls 009 and 011

Biotics historically documents the presence of natural heritage resources within two miles of the project area. However, due to the scope of the activity and the distance to the resources, we do not anticipate that this project will adversely impact these natural heritage resources.

Outfalls 001, 002, 006, 007, 008, 010, 012, 013 and 014

Biotics documents the presence of natural heritage resources within two miles of the project area. However, due to the scope of the activity and the distance to the resources, we do not anticipate that this project will adversely impact these natural heritage resources.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

New and updated information is continually added to Biotics. Please re-submit project information and map for an update on this natural heritage information if the scope of the project changes and/or six months has passed before it is utilized.

The Virginia Department of Game and Inland Fisheries (VDGIF) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from <http://vafwis.org/fwis/> or contact Ernie Aschenbach at 804-367-2733 or Ernie.Aschenbach@dfw.virginia.gov

Thompson, Debra (DEQ)

From: Howell, Jennifer (DEQ)
Sent: Monday, August 31, 2015 9:15 AM
To: Thompson, Debra (DEQ)
Subject: RE: D.O. Limit for D.O. for IP

Good morning Debbie,

The DO minimum concentration of 4 mg/L would still be appropriate for discharge into this water. Even though the natural conditions process will change this portion of the Blackwater River from Class II to Class VII, there is no DO standard set for swamp waters. In addition, during the development of the natural condition report, an assessment of the data showed the discharge itself did not have an impact on the DO levels in the River. The DO sampling would continue to show that the facility is not considered an anthropogenic contributor to the low DO.

I also put the TMDLAttachment_1 in the permit folder. It is the actual approval letter from EPA. Please let me know if you have any questions.

Thanks,
Jen

Jennifer S. Howell
TMDL Project Coordinator
Virginia Department of Environmental Quality
Tidewater Regional Office
5636 Southern Blvd
Virginia Beach, VA 23462
(757) 518-2111
(757) 518-2009 fax
jennifer.howell@dea.virginia.gov

From: Thompson, Debra (DEQ)
Sent: Friday, August 28, 2015 3:41 PM
To: Howell, Jennifer (DEQ)
Subject: RE: D.O. Limit for D.O. for IP

Sure! I am off Mon and Tues. Will be in the office on Wednesday to take care of IP, Thanks, Debbie

From: Howell, Jennifer (DEQ)
Sent: Friday, August 28, 2015 3:40 PM
To: Thompson, Debra (DEQ)
Subject: RE: D.O. Limit for D.O. for IP

Hi Debbie,

I have been in a meeting and now leaving for the day. Would you mind waiting until Monday for a response?

Thanks

Jennifer S. Howell

TMDL Project Coordinator
Virginia Department of Environmental Quality
Tidewater Regional Office
5636 Southern Blvd
Virginia Beach, VA 23462
(757) 518-2111
(757) 518-2009 fax
jennifer.howell@deq.virginia.gov

From: Thompson, Debra (DEQ)
Sent: Friday, August 28, 2015 2:14 PM
To: Howell, Jennifer (DEQ)
Subject: D.O. Limit for D.O. for IP

Hey Jen,
What are you looking for regarding your comment to include DO in the permit? Possible minimum?
Thanks, Debbie

*Debra L. Thompson
Environmental Specialist II
VA Department of Environmental Quality
5636 Southern Boulevard
Virginia Beach, VA 23462
(757) 518-2162 phone*

EMAIL ADDRESS:
debru.i [hompson\(a\)deq.](mailto:hompson(a)deq.),
Office Info: <http://www.deq.virginia.gov/regions/tidewater.html>



617
PPM ✓
PAP

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

W. Tayloe Murphy, Jr.
Secretary of Natural Resources

5636 Southern Boulevard
Virginia Beach, VA 23462
www.deq.stateva.us

Robert G. Burnley
Director

FranCis L. Daniel
Tidewater Regional Director
(757) 518-2000

September 20, 2002

Ms. Sheryl S. Raulston
Environmental Affairs Manager
International Paper, Franklin Mill
34040 Union Camp Drive
Franklin, VA 23851

Re: VPDES VA0004162; Groundwater Monitoring Plan
International Paper Franklin Mill
Franklin, VA

Dear Ms. Raulston;

We have reviewed the revised Groundwater Monitoring Plan for the Franklin Mill. The revised Plan satisfies the requirements in VPDES permit VA0004162, and the Plan is approved as submitted. Thank you for your cooperation in submitting the revised Plan. Please note that any changes to the Plan will require review and approval from this office:

There are certain items to note in regard to the Plan. If there are any changes to the groundwater uses or if it is suspected that seepage from the area of C Pond is increasing, the Plan may need to be revised to address changes in the area of C Pond. If any well in the area of the ASB is damaged or destroyed, we would expect that a suitable replacement well would be installed prior to the next scheduled sampling event. If any groundwater sampling event indicates that the sampling results exceed the groundwater comparison values listed in Table 3-3, the Annual Report shall note the exceedances, and the DEQ may request a meeting to discuss future sampling requirements, including the possibility of resuming instream sampling.

If you have any questions, or need additional information, please contact me at the above address, or by telephone at - (757) 518-2105.

Sincerely,



Mark H.
Sauer Permit
Engineer

PP

ENTEM.¹,a'i E

Pir\liER

34040.Utillon Camp Drive
Franklin, VA 23851

September 13, 2002

Certified Mail
Return Receipt Requested



Mr. Mark Sauer
Department. of 'Environmental Quality
Tidewater Regional Office
5636 Southern BLVd:,
Virginia Beach, VA 23462

Re: VPDES Groundwater Monitoring Plan
International Paper - VPDES Permit No. VA0604162

Dear'Mr. Sauer:

Please find enclosed International Papers•revised VPDES Groundwater Monitoring Plan (Plan). This Plan was originally submitted to the Department of Environmental Quality (DEQ) in April 2000 and has been revised in accordance with the DEQ comment letter on,this plan dated May 22, 2001, discussions between DEQ, and International Paper on 'March 14, 2002, and 'International Papersmeeting' summary submitted to DEQ in a letter dated April 30, 2002.

As described inthe, revised Plan, International Paper conducted the additional field investigations.agreed to during the March 14, 2002 .meeting, and has incorporated the results of this field •work into the Plan. The,field work confirmed' the, site conceptual flow model, between the ASB and the Blackwater River and International Paper used this model to calculate groundwater comparison values in accordance with the procedures' agreed to at the March meeting and described in the meeting. summary submitted to DEQ: in April 2002.

If you ,have any questions concerning the information included in this letter, please contact Ellen Cobb at 569-4885.

I certin) under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel prOperly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering 'the information, the information submitted is; to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely;

Sheryl S. Raulston
Environmental Affairs Manager



Attachment 'I

Onternational **Paper Groundwater Monitoring Program**

VPDES VA0004162

Aerated Stabilization Basin (ASB)

Monitoring Locations

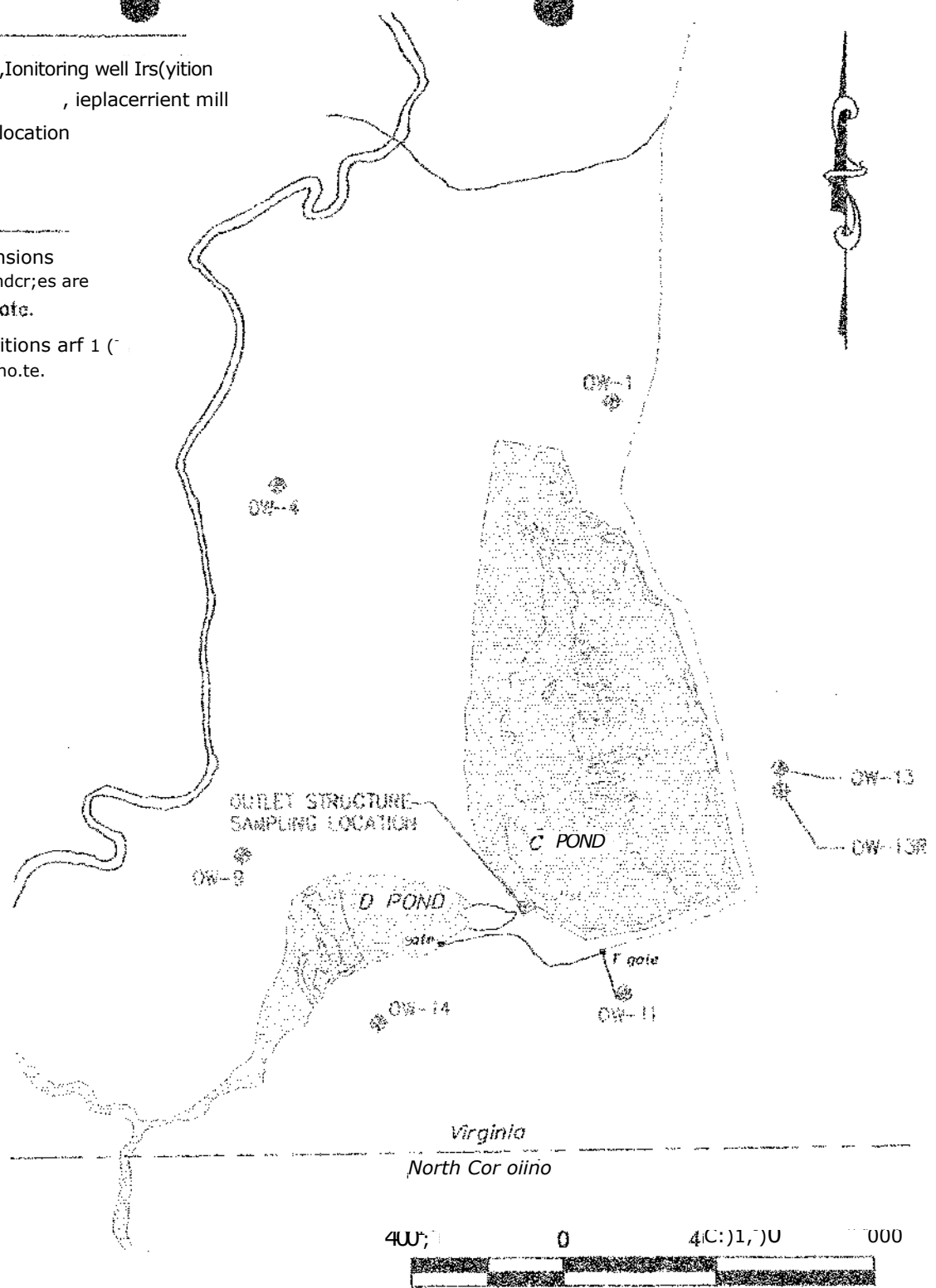
13-15

LEGEND:

- OW Monitoring well location
- OW Placer mill location


NOTES:

- 1, MI dimensions and boundaries are approximate.
- 3, 'Ne'l Hcritions arf 1 (7,op'ox]rno.te.



Source: Aerial photo provided by Union Camp; quadrangle & geologic maps.

SCALE IN FEET
1" = 4000'

 INTERNATIONAL 7041 Old Wake Road Raleigh, North Carolina 27616 P110111: (919) 872-11660 FAX: (919) 872-7996 WEB: HTTP://WWW.EHSI.COM	REVISIONS				WELL LOCATION MAP C-POND AREA International Paper Franklin, Virginia DATE: 03/02/00 06890-260	DRAWING NUMBER: 800002A
	NO.	DATE	BY	SCALE: 1" = 4000'		
				SHEET NUMBER: 1 OF 1		

Attachment II

International Paper Groundwater Monitoring Program

VPDES VA0004162

C-Pond

Monitoring Locations

15-15

LEGEND:

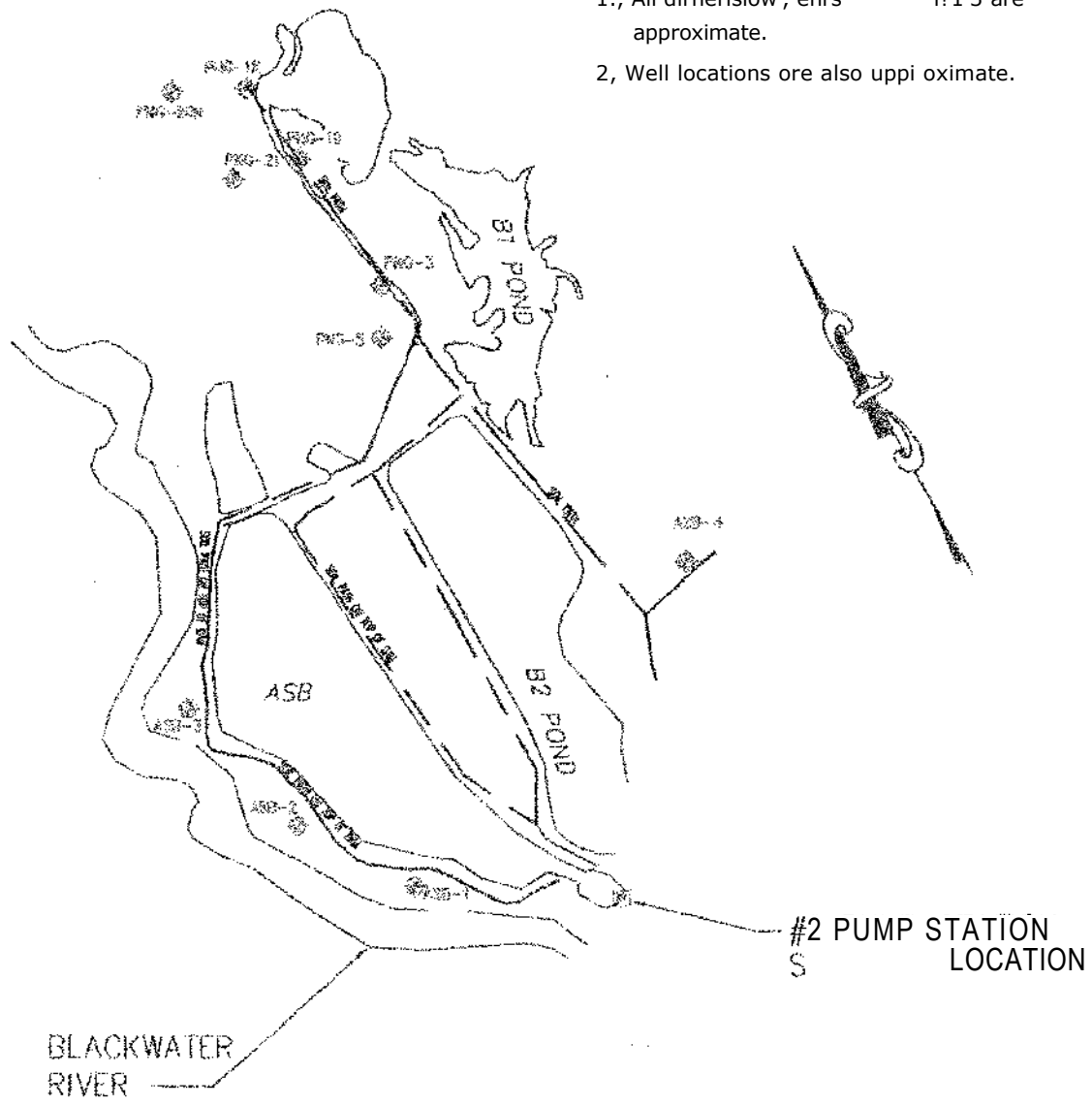
ASB-4 Millit (Jr in (.1 ell location

Fifluen Somp{e Location

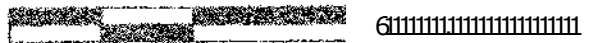
NOUS! _____

1., Ali dirnerisiow, enrs i?1'3 are approximate.

2, Well locations ore also uppi oximate.



1500 0 1'00 3700



sch, LE IN FEET
" 1600"

Source: Aerial photo provided by Union, Virginia & year unknown. Taken after Malcolm Pirnie VIMS Groundwater Monitoring Plan, 1995.



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Raltigh, 1•Orth Carc, linci PHONE: 18
019) 572 -E500 FAX: 0310) 372-
7096, TTL: 1/1", r5', -/.1"/4 SR.
CC: M

Soik 10 3

REVISIONS

NO.	DESCRIPTION	DATE	BY

WELL LOCATION MAP
ASB AREA

inler nufloiml Paper
makin, Virginia

DRAWN BY: T01 DATE: 2/05/00 FPOY: =C1 NUE qui 06890-250

DRAWING NUMBER

800001A

SCALE

1" = 1600'

SHEET NUMBER

Attachment VIII

International Paper Groundwater Monitoring Program

VPDES VA0004162

Aerated Stabilization (ASB)

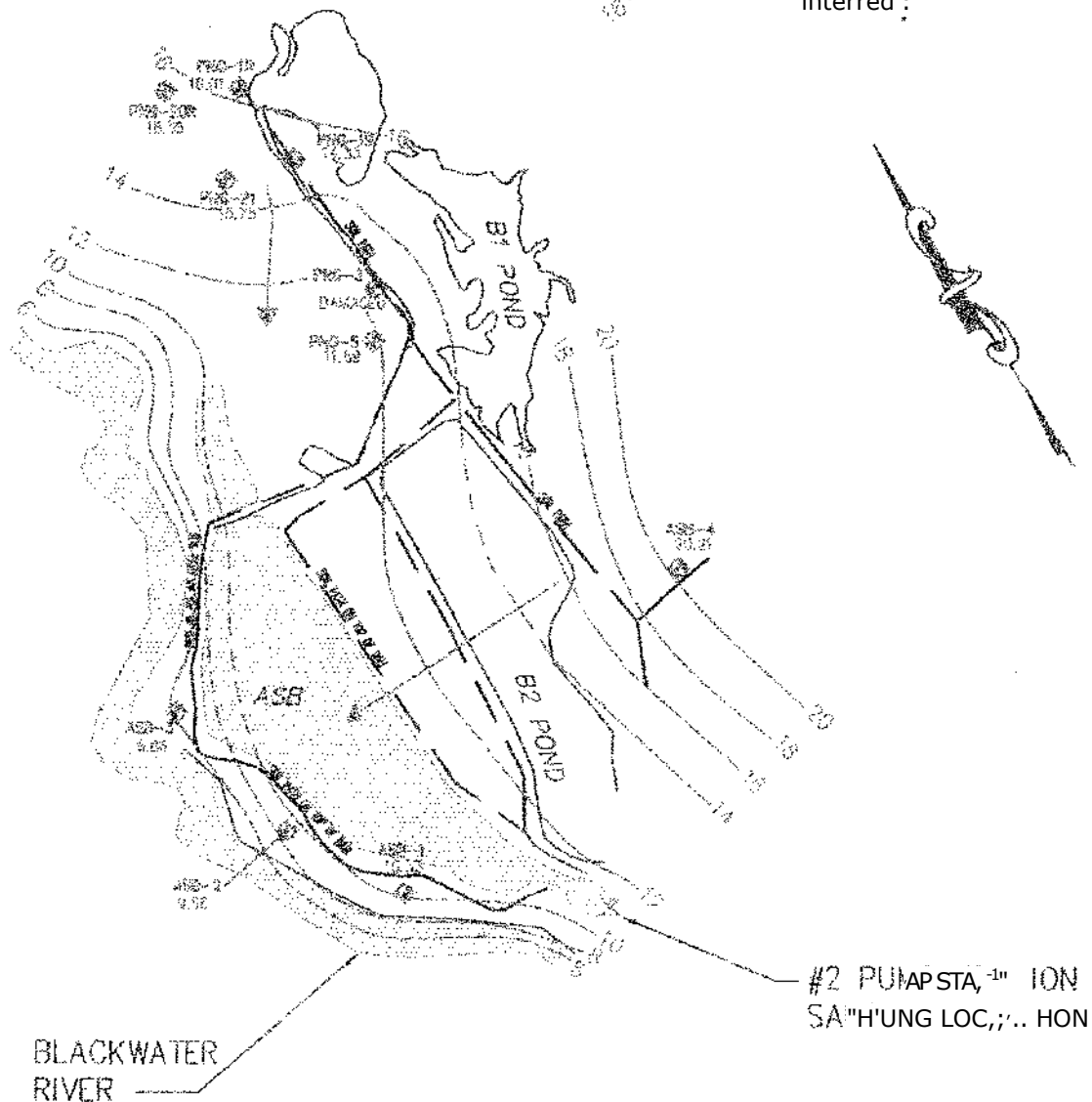
Groundwater Flow Diagram

NOTES:

1. All dimensions and boundaries are approximate.
2. Well locations are also approximate.
3. Water levels collected on 06/05/01

LEGEND:

- ASB-4 Monitoring well location El
- Fluent Sample Location
- Groundwater flow direction
- Groundwater Elevation Contour (dashed where interred):



1500 0 100 3200



Souren; r lot photo provided f Union Camp; c,ki,Aningh, A
unkna.n. of t-af Malcolm Pi,rfr.% \TOE'S
liranttavalifir Monitoring Pion, 19435.

SC. LLT
1" = 1500'



7041 Olci Farinsi Road Saito 103
Polaiuh, Norill Carolina 77918
PHONE: (919) 372-95:00
FAX: (919) 872-7095
WEB: it TTP://WWW.0499 (:01:1

REVISIONS			
NO	DESCRIPTION	DATE	BY

GROUNDWATER FLOW MAP
ASP ARFA
(2ND OIR 2001)

Franklin, Virginia

DRAYBI BY: TOF DATE: 05/07/01 PROJECT NO/JEWR: 001300 260

HYDRO NUMBER

C)0019A

SCALE:

AS SHOWN

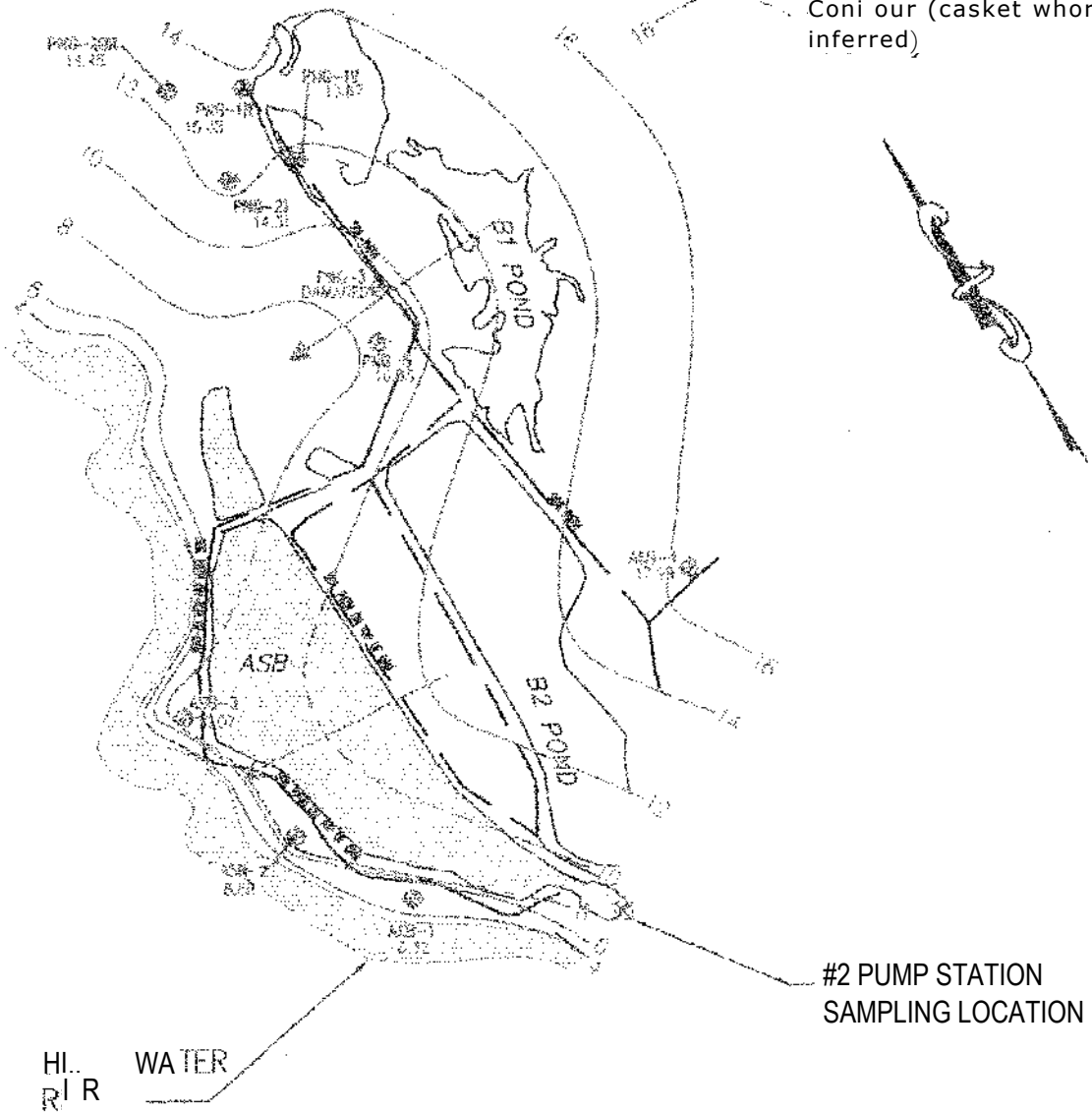
SHEET NUMBER:

NOTES:

1. All data points and boundaries are plotted on a map.
2. Well locations are 171 in diameter.
3. Water levels collected on 10/10/01.

LEGEND:

- ASB-4 4.40miforing location
- Effluent Sample Location
- NS Not sampled
- Groundwater Flow Direction
- Groundwater Elevation Contour (elevation where inferred)



#2 PUMP STATION
SAMPLING LOCATION

HILL
RIVER

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• FAX: (919) 877-7996
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REVISIONS			
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GROUNDWATER FLOW MAP ASB AREA (411-I MR 2001)

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Attachment

International Paper Groundwater Monitoring Program

VPDES VA0004162

C-Pond

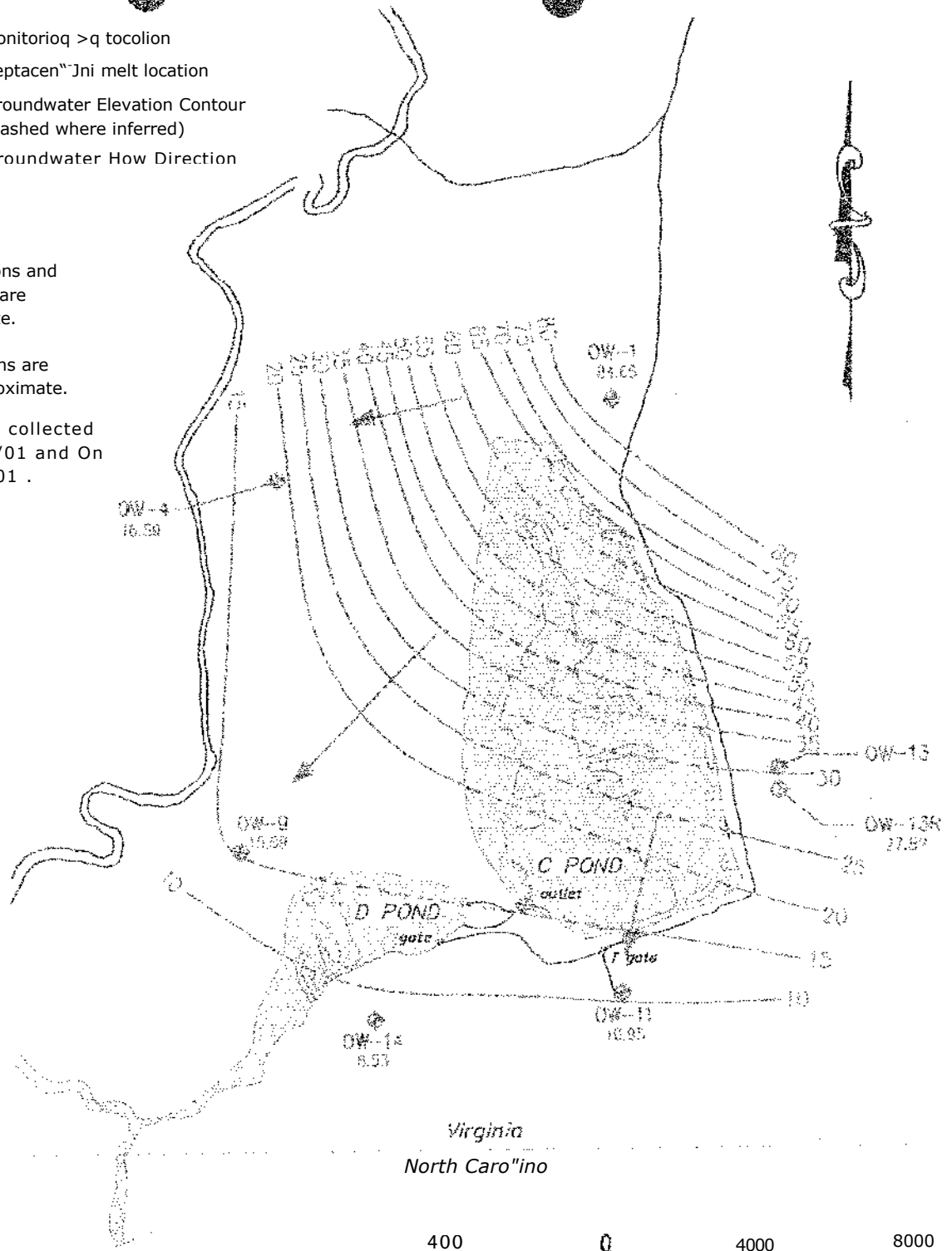
Groundwater Row Diagram

LEGEND:

- OW-13 Monitorioq >q tocolion
- OW-13R Reptacen™ Jni melt location
- Groundwater Elevation Contour (dashed where inferred)
- Groundwater How Direction

NOTES

1. All dimensions and Boundaries are oppro):imate.
2. Weil locutions are ' :1P;o approximate.
3. War levels collected on 10/10/01 and On 1 0/ 1 1 /01 .



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INTERNATIONAL
7041 Old *joke Forest Road
.12c:sleigh, North Carolina
PHONE: (919) 872-6500
FAY: (919) 872-799E

Suite 103

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GROUNDWATER FLOW MAP 1

C -POND
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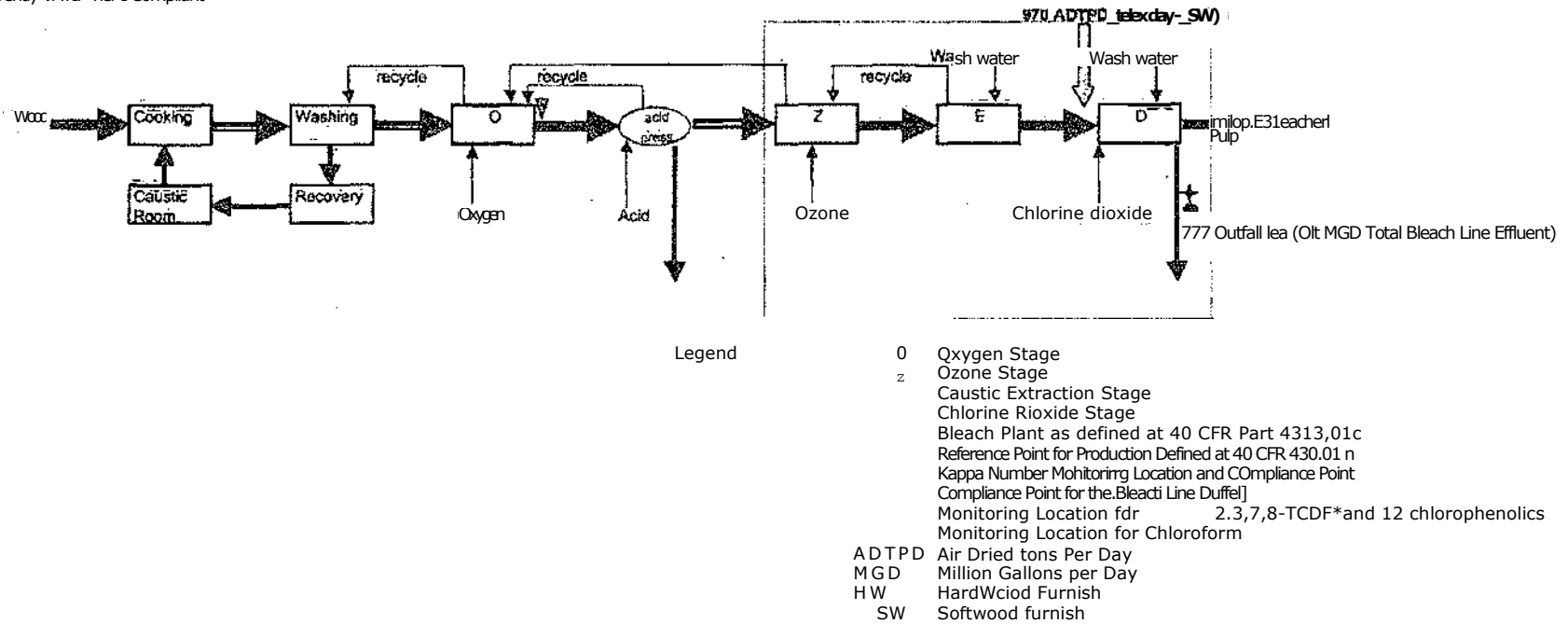
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Figure 2

F Bleach Line

Current Configuration Softwood Furnish

Enrolled In Cluster Rule Voluntary Advanced Technology Modifications Program (VATIP)
Currently VATIP Tier I Compliant



FORM 2C —SECTION V.D
International Paper-Franklin Mill
VPDES Permit No VA0004162

The following pollutants from Table 2c-3 are incidental to the kraft pulping and bleaching process and, therefore could potentially be discharged from outfall 001 in trace quantities. No analytical data is available.

1. Acetaldehyde
2. Carbon disulfide
3. Cresol
- 4_ Formaldehyde
5. Isoprene
6. Methyl mercaptan
7. Xylene

(Reference: NCASI Environmental Resource Handbook for Pulp and Paper Mills, Revised March 1, 2002. Table 1.6.3-2 Chemicals on the CERCLA/SARA Lists that are Commonly Found at Pulp and Paper Mills)

In addition to those pollutants listed above, the following Hazardous Substances from Table 2c-4 are also used in and around or are incidental to the kraft pulping, bleaching and papennaking processes and, while not intentionally or routinely discharged, they could potentially be discharged from outfall 001

Substance	Source	Max Potential Spill Quantity(lbs)
Acrolein	Incidental by product	Negligible
Aluminum Sulfate *	Storage tank	140,000
Ammonia	Storage tank	8,000
Chloroform	Incidental byproduct	Negligible (internal outfall data reported on
Ferric Sulfate *	Storage tank	48,000
Hydrochloric acid *	Storage tank	250,000
Hydrogen sulfide	Incidental byproduct	Negligible
Nitric acid *	Storage tank	12,000
Pentachlorophenol	Incidental byproduct	Negligible (ND in form 2C testing)
Phosphoric acid *	Storage tank	7,000
Sodium hydrosulfide	Storage tank, rail car	140,000
Sodium hydrOxide ®	Storage tank	2,200,000
Sodium hypochlorite -	Storage tank	132,000
Sulfuric acid *	Storage tank, rail car	3,200,000

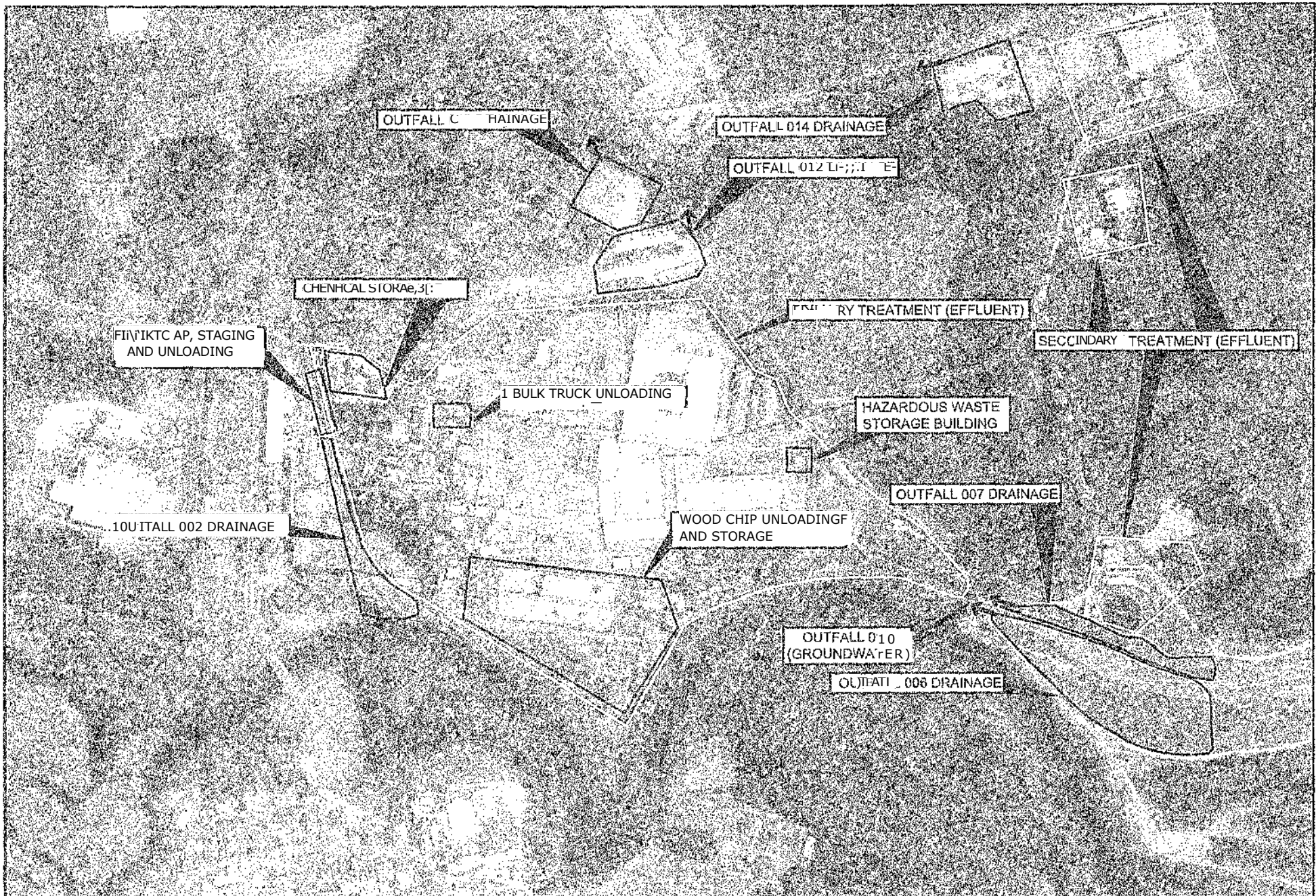
The mill's effluent treatment system is capable of treating and/or reducing the concentrations of the substances listed above through mixing, dilution,

neutralization, oxidation, flocculation/settling, and/or biological treatment to reduce organics.

The mill's VPDES permit contains a pH limitation of 6.0 to 9.0. The pH of the effluent is monitored at Outfall 001 and serves as an indicator of the effectiveness of the neutralization of the acidic and caustic substances noted with an asterisk above. The pH limit controls the releases of these substances by requiring our effluent to fall in the neutral range of 6.0 to 9.0. We identify these substances as part of this application and feel the limitation of pH fulfills the requirements allowing discharges of these substances to be excluded from the requirements of Section 311 as described in Section 117.12 of 40 CFR.

The mill's VPDES Permit includes chloroform limitations and monitoring requirements at internal outfall 103. Thus the limitation of chloroform fulfills the requirements allowing discharges of chloroform to be excluded from the requirements of Section 311 as described in Section 117.12 of 40 CFR.

Similarly, the VPDES Permit limitations on BOD and AOX at outfall 001 would fulfill the requirements allowing discharges of the remainder of the noted substances to be excluded from the requirements of Section 311 as described in Section 117.12 of 40 CFR.



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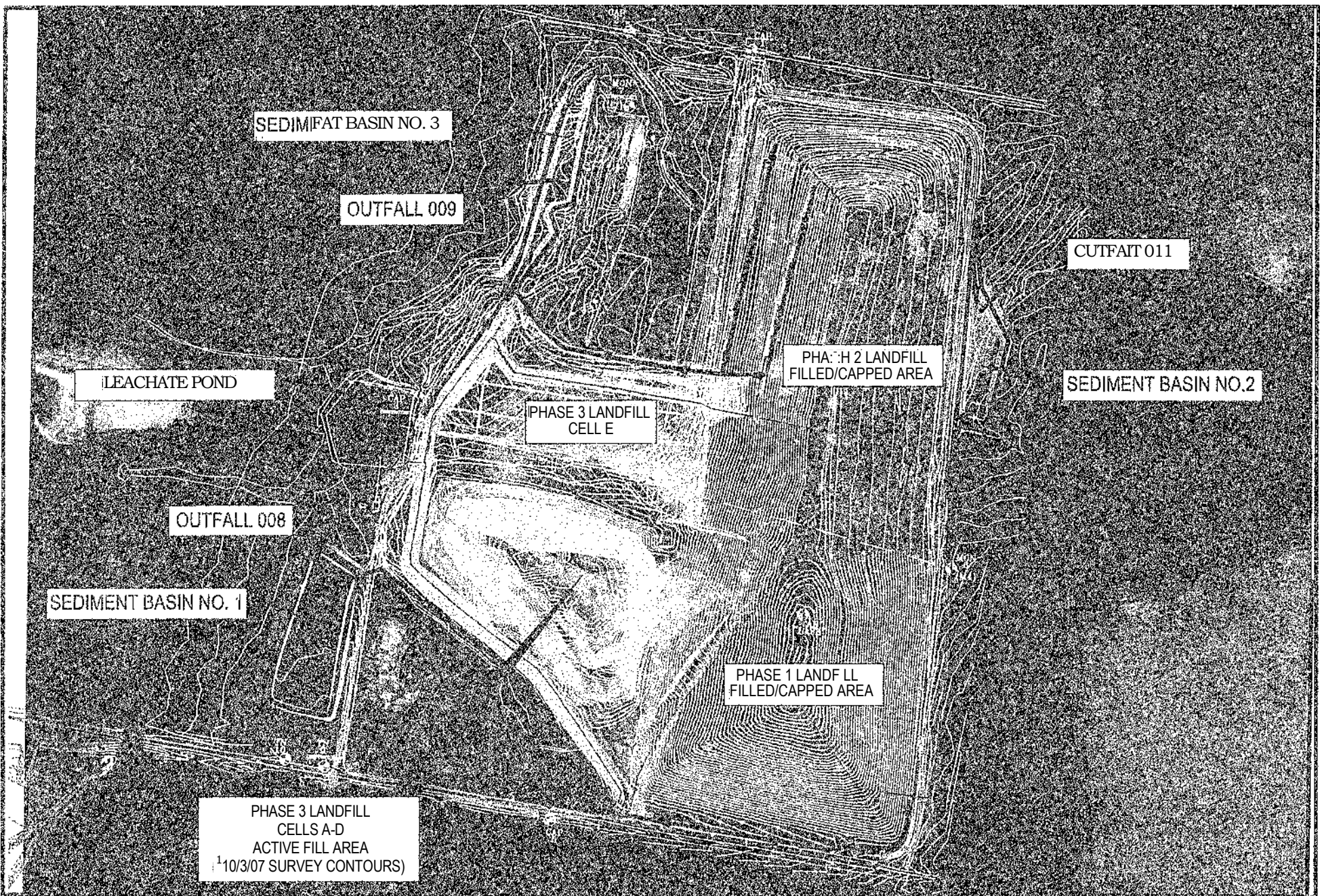
International Paper
NPDES Form 2F, Section III
Map F - Mill Site Drainage Map



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GRAPHIC SCALE (IN MILES)



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Intentional Paper
NPDES Form 2F, Section III Map
F - Landfill Site Drainage Map



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GRAPHIC SCALE (IN FEET)

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34040 Union Camp Drive
Franklin, VA 23851

*Tidewater Regional
Office*

February 6, 2015

Mr. Mark, Sauer
Department of Environmental Quality
Tidewater Regional Office
5636 Southern Blvd.
Virginia Beach, VA 23462

Re: 2014 Groundwater Monitoring Report (VPDES Permit No. VA0004162)

Dear Mr. Sauer:

In accordance with its Virginia Department of Environmental Quality (DEQ)-approved Groundwater Monitoring Plan ("Plan"), International Paper is submitting this 2014 groundwater monitoring report. The purpose of the Plan is to evaluate the effects of effluent seepage from the Aerated Stabilization Basin (ASB) to surrounding sensitive receptors.

International Paper's current Virginia Pollutant Discharge Elimination System (VPDES) Groundwater Monitoring Plan (Plan) was submitted to DEQ in September 2002 with revised Plan pages approved by DEQ in April 2003. DEQ reissued International Paper's VPDES permit in 2005, 2010, and 2012, but no changes were made to the VPDES Groundwater Monitoring Plan. In an email dated July 17, 2006, DEQ approved the removal of staff gauge measurements from the Groundwater Monitoring Plan.

2014 Monitoring Activities

Monitoring activities performed during the spring and fall 2014 events were conducted in accordance with the approved Plan, with the approved changes described above. The spring monitoring activities were conducted on April 21, 2014. The fall monitoring activities were conducted on October 15, 2014. Four groundwater monitoring wells (ASB-1, ASB-2, ASB-3, and ASB-4) were sampled and the pH and water elevation of the ASB were measured during both 2014 sampling events. The ASB and associated groundwater monitoring wells are shown on Attachment I (ASB Area Map).

Groundwater Flow Analysis

Groundwater elevations were measured during the spring and fall 2014 sampling events. These data are provided and illustrated in Attachment II (2014 Groundwater Elevation Data) and Attachment III (2014 Groundwater Flow Maps). The groundwater elevations reflect a very flat water table and support the hydraulic parameters used in the conceptual model to determine the groundwater screening values outlined in the Groundwater Data Analysis section. The groundwater elevations show flow from the ASB towards the Blackwater River.

.Groundwatpr Data and Analysis

The Plan includes a groundwater comparison value that has been calculated for each analyte using a surface water screening value (the Virginia Water Quality Standards [9 VAC 25-260140]) for constituents with standards and a secondary chronic value for constituents without

- standards (chloroform) to back calculate groundwater screening criteria. Comparison of the analyte concentrations to the screening criteria was performed for the data collected in the spring and falls of 2014. This comparison, summarized in Attachment IV (2014 Data Summary), shows no exceedance of any screening value, with the exception of p1-I in upgradient well, ASB-4 as discussed below,

The comparison value in the 2002 Plan for pH is the Virginia Water Quality Standard of 6.0 to 9.0. During the spring and fall 2014 sampling events, the pH measured at up-gradient monitoring well ASB-4 was below 6.0; however, pH in the ASB was between 7.8-7.9. In terms of pH, the ASB was shown to improve the current downgradient groundwater quality, as the downgradient pH ranged from 6.4 to 7.0 during 2014. In accordance with previous discussions with DEQ, it was concluded that: no ongoing degradation of groundwater pH was occurring and the ASB was considered in compliance for pH with the 2002 Plan and with DEQ's antidegradation policy, which states that the ASB cannot further degrade the pH quality of the river.

The permit does not include groundwater comparison values for Total Organic Carbon (TOC), Total Dissolved Solids (TDS), or hardness because aquatic life chronic values are not available for these constituents. As required by the permit, the results of the groundwater sampling for TOC, TDS and hardness were compared to previously collected data to evaluate for significant changes. These comparisons are shown in the period of record graphs in Attachment V (Graphs of Total Dissolved Solids, Hardness, and Total Organic Carbon). No significant changes were observed in the comparison of these constituents to previous data and the maximum concentrations of these constituents in 2014 are below the historical maximum concentrations of these constituents.

Based on the results of these comparisons; International Paper has concluded that no significant changes have occurred in the water quality downgradient of the ASB, and no exceedances of the comparison values for tested have occurred.

2014 Annual Report

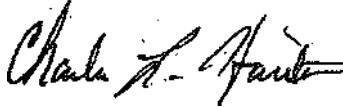
Summary

The 2014 semi-annual groundwater sampling confirms that the groundwater conditions at the ASB, including quality and gradient, have not changed.

If you have any questions concerning the information contained in this report or the conclusions drawn, please do not hesitate to contact Ray Moore at (757) 569-4793.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Sincerely,



Charles L. Hairston
Mill Manager

Enclosures: Attachment I, 4, V

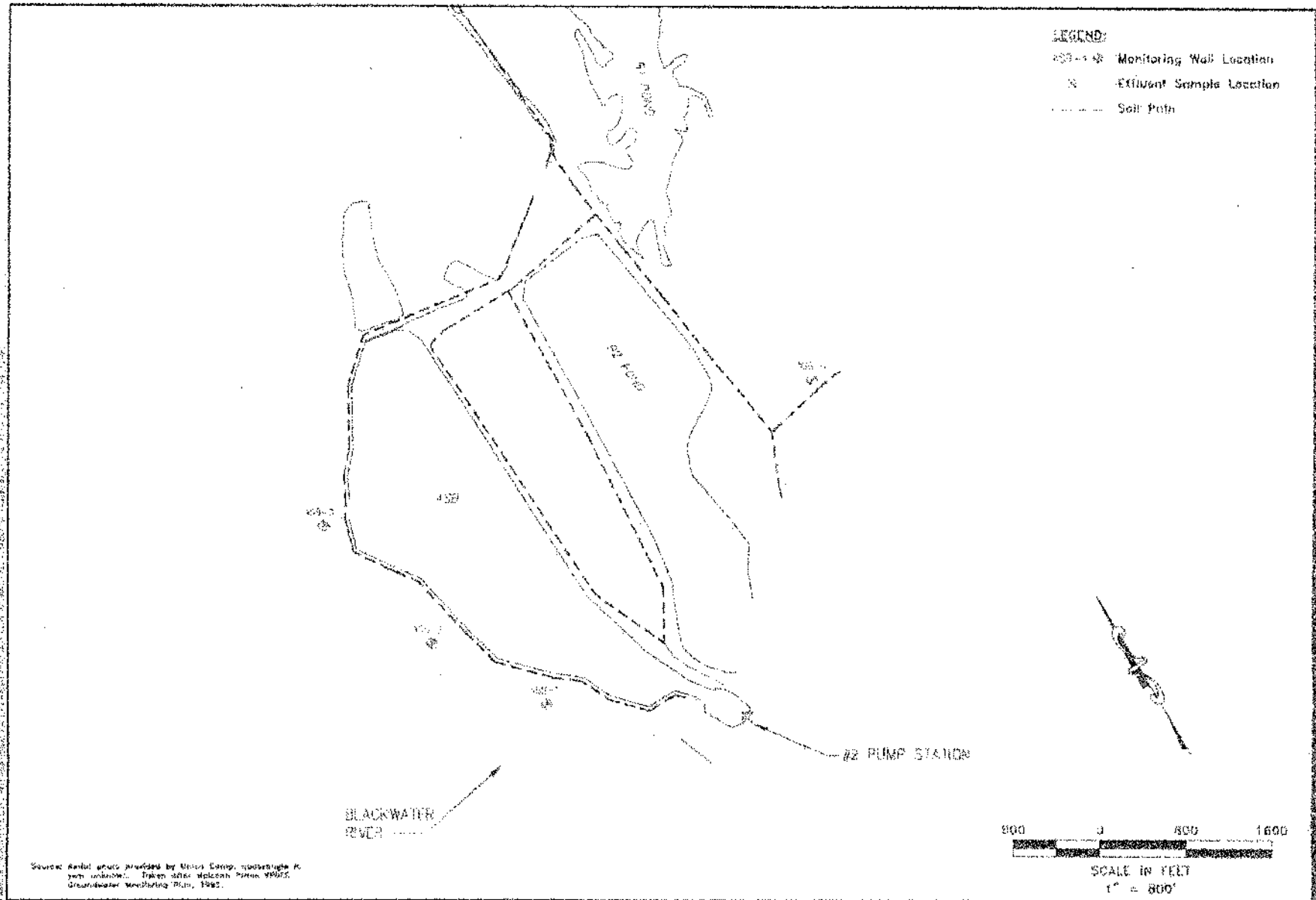
cc: D. Simmons (AECOM) (electronic only)
M. Friedman (AECOM) (electronic only)

13-19

Attachment I

**International Paper Groundwater Monitoring Program
VPDES VA0004162
Aerated Stabilization Basin
ASB Area Map**

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ASCOM

ASB Area Map

International Paper
Franklin, Virginia
Project No. 80254-14 Date 2/14/12-19

13-31

Attachment II

**International Paper Groundwater Monitoring Program'
VPDES VA0004162
Aerated' Stabilization. Basin
2014 Groundwater Elevation Data**

Attachment I)
Triethanolamine (TEOA) Groundwater Monitoring Program
Aerated Stabilization Basin
2014 Groundwater Elevation Data

Location	Semiannual Event	Well Elevation	Depth to Water	Groundwater Elevation (ft msl)	Surface Water Elevation (ft msl)
Aa	4/21/2014		3.32	3.30	N/A
	10/15/2014	6.52	3.17	3.45	N/A
ASB2	4/21/2014	7.76	1.54	4.22	N/A
	10/15/2014		2.03	3.73	N/A
ASB73	4/21/2014	5.32	1.86	3.46	N/A
	10/15/2014		2.28	3.04	N/A
ASB-4	4/21/2014	27.36	5.40	21.96	N/A
	10/15/2014		8.45	16.91	N/A
Atrg *	4/21/2014	N/A	N/A	N/A	14.00
	10/15/2014			N/A	14.70

ft msl - feet above mean sea level
 not applicable

*As required by the permit, the surface water elevation of the ASB is determined at the time of groundwater sampling. The surface water elevation is read from a staff gauge located adjacent to the #2 pump station.

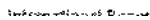
13-33

Attachment

International Paper Groundwater Monitoring Program

- **- VPDES VA0004162**
Aerated Stabilization Basins
- **2014 Groundwater Flow Maps.**

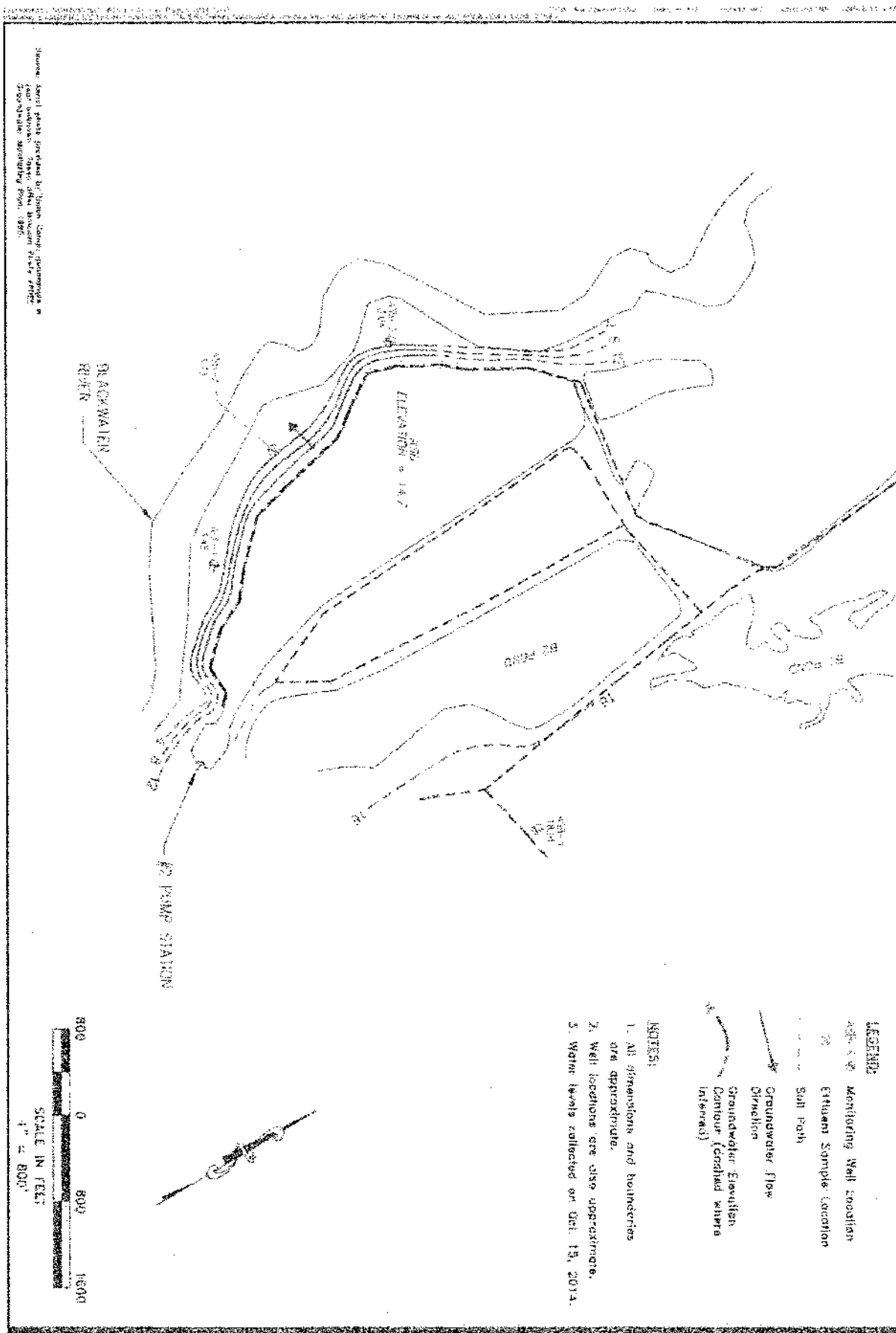
1. 凡在本市行政区域内从事生产经营活动的法人和其他组织，均应当依法缴纳城市维护建设税。



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ASB

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• Attachment .IV

International' Paper Groundwater Monitoring' Program'
VPDES VA0004162
Aerated StabilizatiONBasin
2014 'Data ,SummarY

ATTACHMENT IV

International Paper Groundwater Monitoring Program

Aerated Stabilization Basin (ABB)

• Data Summary - Spring 2014 Semiannual Berripping Avian 21, 2014

Location ID PaY.r.iP100 Sample Date	Method.	Unit	Standard	GylSB-1-114 ASB-1 04/21/2014	Pass / Fail	ASB-1-114 ASB1-D-114 04/21/2014	Pass / Fail	ASB-2-114 ASB2-114 04/21/2014	Pass / Fail	ASB-4-114 ASB4-114 04/21/2014	Pass / Fail	ASB-4-114 ASB4-114 04/21/2014	Pass / Fail	MB 04/21/2014	gglupinetriP10X ASB4-B-114 04/21/2014	T.r10 Blank* ASB-TB,114
Arsenic (a)	E200.7	ug/l	1976	49.4	Pass	47.7	Pass	27.8	Pass	128	Pass	ND	Pass	NA	ND	NA
CarlfrifUTn(a)	E200.7	ug/l	11144	ND	Pass	ND	Pass	ND	Pass	ND	Pass	ND	Pass	NA	ND	NA
Chromium (a)	E200.7	ug/l	2184	ND	Pass	ND	Pass	7.7 /	Pass	3.6% .1	Pass	0:548 B	Pass	NA	ND	NA
L'erid (a)	E200.7	irigil	145.6	ND	Pass	ND	Pass	ND	Pass	ND	Pass	ND	Pass	NA	ND	NA
Zinc (a)	E200.7	ug/I	1144	4.9 J	Pass	ND	Pass	5.8 J	Pass	5.2 J	Pass	ND	Pass	NA	ND	NA
Chloroform	E624	ug.II	291.2	ND	Pass	ND	Pass	ND	Pass	ND	Pass	ND	Pass	NA	ND	NA
Dimon	E1613B	pg/I	0.00001248	ND	Pass	ND	Pass	ND	Pass	ND	Pass	ND	Pass	NA	ND	NA
Total Organic Carbon	S 0 310C	-mg/I	-	36.2	-	45.1	-	63.5	-	64.4	-	1.1	-	NA	ND	NA
Total Dissolved Solids	SM2540C	mqA	-	981	-	994	-	1200	-	1350	-	13	-	NA	ND	NA
Total Hardness (a)	SM2340C	irigif	-	359	-	281	-	-	-	230	-	2.1	-	NA	ND	NA
pH	Field	-	- 6.0-9.0	6.97	Pass	NA	-	6.61	Pass	6.79	Pass	4.81	Pass (b)	7.6e	-	NA
Specific Conductance	Field	ms/c	-	1.69	-	NA	-	1.85	-	2.163	-	0.02	-	NA	-	NA
Temperature	Field	deg.c	-	13.7	-	NA	-	14.0	-	-	-	-	-	NA	-	NA

Notes:

B = Present in Blank

J = Estimated Value.

ND = Not detected above the quantification levels identified in the Groundwater Monitoring Plan.

NA = Not Analyzed.

(a) Groundwater samples were filtered for these analytes.

(b) See text Section 'Groundwater Data and Analysis'

= No groundwater standard established.

ug/l = micrograms per liter

P91 = Pic0ilrWas per liter

mg/l = milligrams per liter

deg c = degrees, Celsius

ms/cm = millisiemens per centimeter

• = A grab sample was collected from the ASB to allow for field measurement of pH. Samples are not collected from the ASB for laboratory analysis.

ATTACHMENT

International Paper Brouttchaater Monitoring Program

Aerated Stabilization Basin (ASB)

Data Summary 4all 2014 Semiannual Sampling Event = October 15, 2014

Sample ID Sample Date	Method	Unit	Standard	ASB-1 ASB1-214 10/15/2014	Pass d Fail	ASS-1 ASB1-13-214 10/15/2014	Pass / Fail	ASB-2 AS132-214 10/15/2014	Pass / Fail	Aqa-3 ASEI3-214 10/15/2014	Pass / Fail	ASS-4 ASI34-214 10/15/2014	Pass / Fail	ASI3 10/15/2014	Equipment Blank ASI34-B-214 10/15/2014	Trip Blank ASB-TB-214 15/15/2014
Arsenic (a)	5200.7	ugA	1976	64.9	Pass	65.9	Pass	27.1	Pass	155	Pass	ND	Pass	NA	ND	NA
Cadmium (a)	E200.7	ugA	11.44	ND	Pass	ND	Pass	ND	Pass	ND	Pass	ND	Pass	NA	ND	NA
Chrothium (a)	E200.7	ugA	2184	1.8 J	Pass	1.8 J	Pass	8.5 J	Pass	5.4 J	Pass	ND	Pass	NA	ND	NA
Lead (a)	5200.7	ugA	145.6	1.8B	Pass	1.68	Pass	ND	Pass	2.7.B	Pass	ND	Pass	NA	14.1	NA
Zinc (a)	E200.7	ugA	1144	ND	Pass	ND	Pass	ND	Pass	ND	Pass	NO	Pass	NA	ND	NA
Chloroform	E624	ugA	291.2	ND	Pass	ND	Pass	ND	Pass	ND	Pass	ND	Pass	NA	ND	ND
Dioxin	51613B	pgII	0.00001248	NO	Pass	ND	Pass	ND	Pass	ND	Pass	NO	Pass	NA	ND	NA
Tatid'Ofteinie/Cirtiiii	SM205310C	MO	r	34:1	-	33.2	-	52.1	-	59.4	-	1:7	-	NA	ND	NA
Total Dissolved Solids	SM2540C	mg.1	-	1040	-	1050	-	1100	-	1340	-	20	-	NA	ND	NA
Total Hardness	SM 2340C	mg/1	-	185 J	-	107 J	-	75.7 J	-	170 J	-	ND	-	NA	ND	NA
pH	YSI	ph units	6.0-9.0	6.73	Pass	NA	-	6.41	Pass	6.64	Pass	4:15	Pass (b)	7.83	NA	NA
Specific Conductance	YSI	ms/cm	-	1.92	-	NA	-	1.87	-	2.42	-	0.023	-	NA	NA	NA
Temperature	YSI	deg c	-	17.8	-	NA	-	17.8	-	18.5	-	19.30	-	NA	NA	NA

Notes:

B s Present in Blank.

J = Estimated value.

ND = Not Detected above the quantification levels identified in the Groundwater Monitoring Plan.

NA = Not Analyzed.

(a) GroundWater samples were filtered for these analytes.

(b) See text Section Groundwater DMZ 8 Analysis

- = No groundwater standard established.

41 = micrograms per liter

FPI = picAtrien: S per trier

mg/I F milligrams per liter

1-6 = millisiemens per centimeter

deg c = degrees Celsius

=A grab sample was collected from the ASB to all

or field Mriasuremeniof pH, Samples are net collar: fed from the ASB for laboratory 'analysis.

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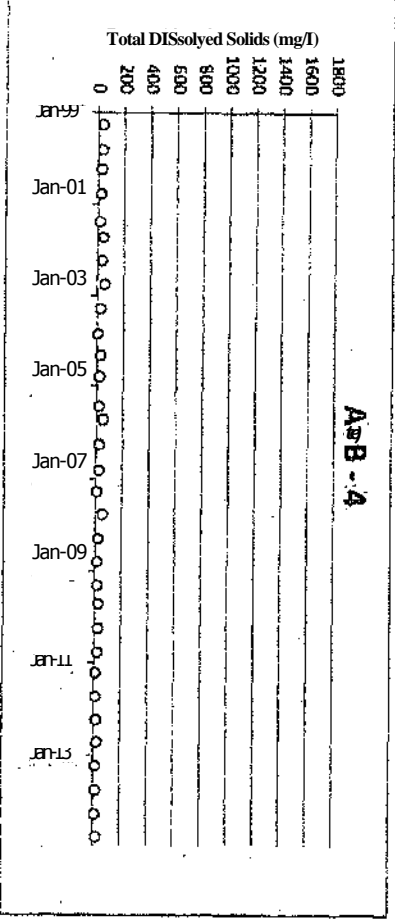
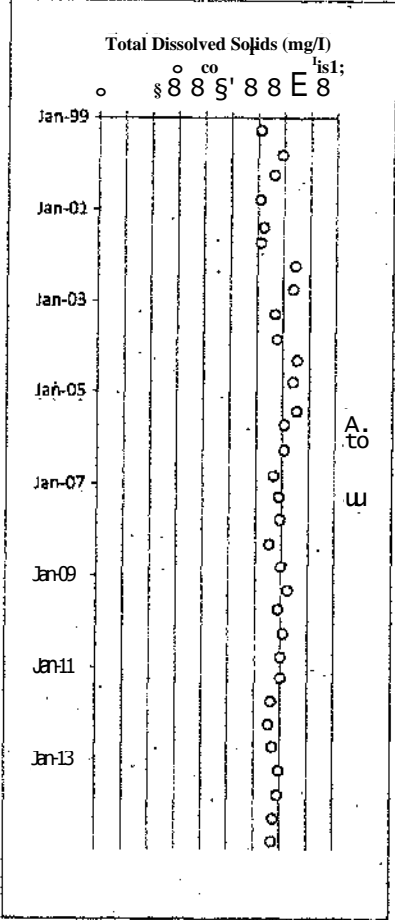
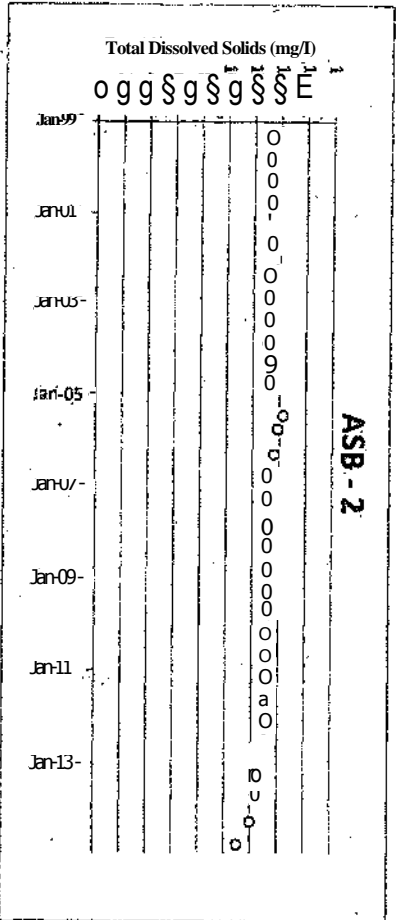
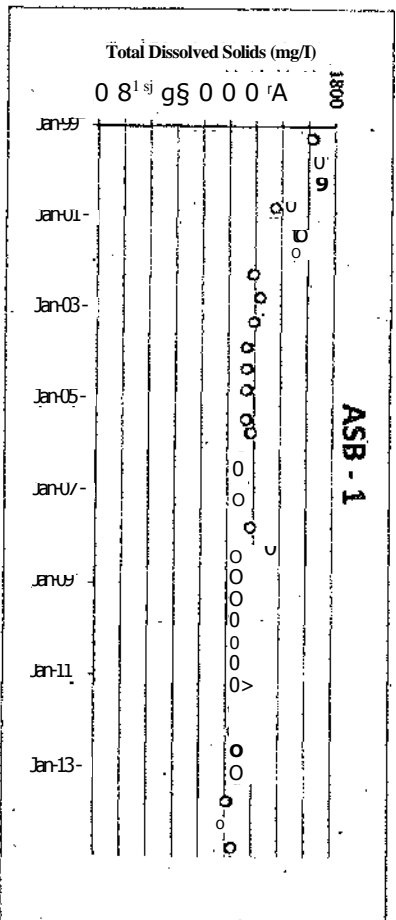
Attachment V

International' Paper Groundwater Monitoring Program

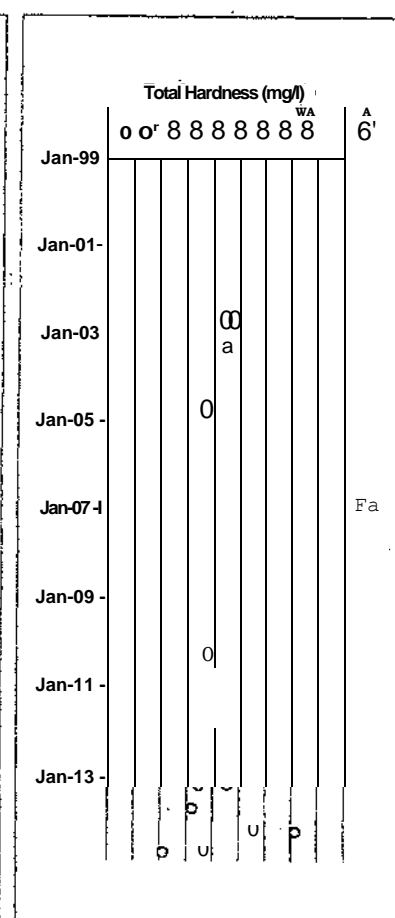
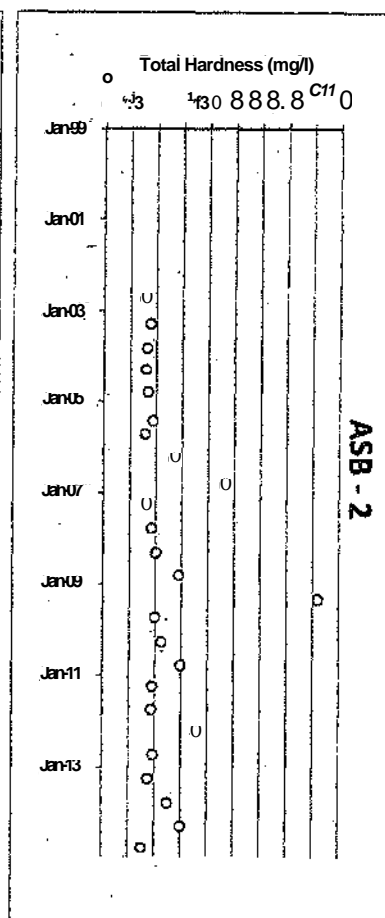
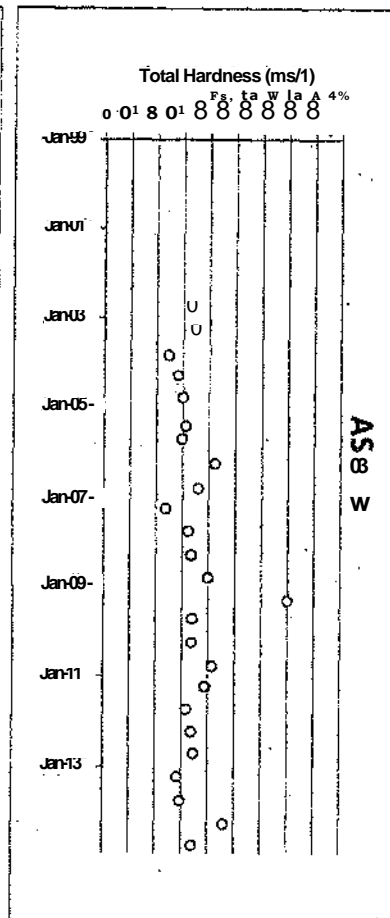
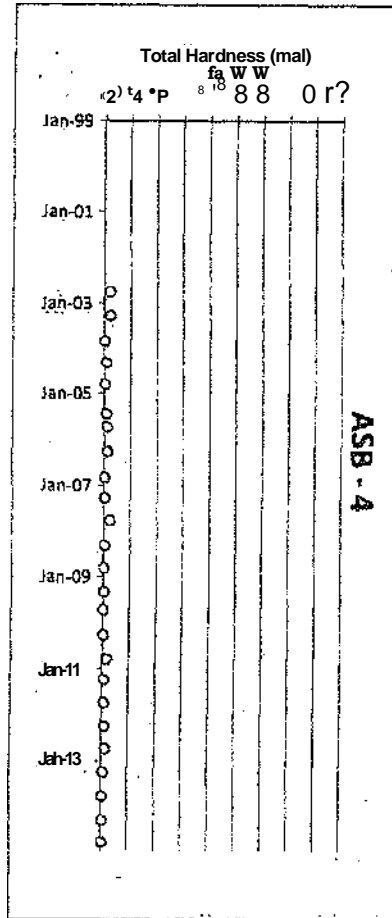
VPDES. VA0004162

Aerated Stabilization Basin

Graphs of Total, Dissolved Solids, Hardness, and Total Organic Carbon



Jadswedingu - 1/6w



magaw

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a.e,
ga
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